**M0110**
**Edition 10.3**
**Issued on Aril 2012**

# HVR Server & Live Center

## Operation Guide

### For Version 10.3.x

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## Introduction of IP-CCTV Solutions

Thank you for using the ILDVR® IP video surveillance system. This operation manual illustrates how to set up the hardware and software. It also helps to explain each individual icon function and demonstrates how to use the system effectively in a stable environment. Prior to installing the system, operators should go through this manual thoroughly. Local suppliers may support them in due course.

### IP-CCTV Product Lines

| Item | Product Name | Video Record or Streaming | Reasons for choosing… |
|---|---|---|---|
| 1 | HVR<br>(Hybrid Video Recorder) | Local HDD and network | High resolution and high quality video images with a friendly GUI interface. It's convenient to operate, easy to expand the cameras, and possesses powerful integration capabilities. |
| 2 | NetDVR<br>(Stand Alone) | Local HDD and network | Stable, with no risk of computer viruses. Requires very low maintenance. |
| 3 | IP Camera | Local SD card and network | This is the next generation product in security surveillance. This product has everything you need, all built into one! The IP Camera is very cost effective and incredibly easy to install |
| 4 | IP Speed Dome | Network | This has all the traditional high speed dome features, but overcomes the coaxial cable distance limitation. |
| 5 | IP Video Server | Network<br>(5001HS both SD card and network) | Convert your existing analog camera to an IP camera. Use this to upgrade your existing CCTV system to an IP-CCTV system |
| 6 | HD SDI camera | High resolution digital video | HDcctv 1080P |
| 7 | Software solution | CMS / IP Matrix /Net_Backup | CMS includes Central Server, Stream Server, E-map and Client.<br>IP matrix TV-wall |

ILDVR IP-CCTV Solution hardware&software structure
Data Analytics
Car license plate
Access control
POS machine
Analog Video In
Analog camera
IR camera
Analog PTZ
Audio in and Alarm in
Microphone
Smoke sensor
IR sensor
Fire alarm panel
PC DVR
NetDVR
IP Video Server
IP Camera
IP Speed Dome
LAN / WAN
CMS Solution
For distributed large scale surveillance system
>16 net users with different priority
64--9999 cameras in multiple monitoring sites
TV Wall
Central Server
Stream Server
E-map
CMS Client
web client
PDA/Cell phone
Live Center
E-map
TV Wall
For samll and medium size surveillance system
<16 net users with different user rights
<64 cameras in single site or multiple sites
Live Center solution

# Chapter 1 HVR Server

## 1.1. Product Features and Model difference

### System Key Features

- Hardware built to support H.264 compression.
- Maintains the highest recording video quality while keeping hard drive memory usage to a minimum, even as it adapts to low and high speed network access
- Supports digital camera (HD-SDI), analog camera and IP camera hybrid connections (including Mega Pixel camera, NetDVR, and IP video server)
- Supports POS/ATM machine transaction with text data overlay recording
- Supports Access Control integration
- Supports digital watermarking, preventing any binary program from editing the recorded video
- Real-time full-motion video display & recording. Max. 64ch video inputs (either DVR card or IP camera) at 30 fps per channel
- Synchronous audio monitor and recording (optional) with an embedded VoIP function
- Motion Detection (Whole area or max. 12 detection zones per channel). Privacy mask feature
- Continuous record and event record options (Motion detection or external sensors)
- Data analytics includes Motion Event search, Sensor trigger alarm search, Object Search (Smart Search), POS Search and ACU Search)
- Network access via LAN, Ethernet, PSTN, ISDN, ADSL, etc.
- 10 different types of alarm notification, including SMS text message, email, E-map, etc.
- Pre-alarm / Post-alarm recording
- Remote Relay out (D/O) control and management
- Support 4 screen output.
- Support mobile phone remote surveillance including most popular brand name iPhone, Blackberry, Nokia, Window Mobile, etc.
- Supports both TV-out card IP Matrix and PC Decode IP Matrix.

### Model difference

The HVR server supports different DVR cards mixed in one system, but it has a maximum limit of 64 cameras. Please refer to Appendix C for more info.

## 1.2. Hardware and Software Installation

### 1.2.1. Compatible hardware List

The HVR Server software can only run on INTEL based platforms running Microsoft Windows Operation System (Both 32 bit and 64 bit). Avoid using AMD, VIA and SIS chipset motherboards and/or onboard display cards. The HVR server System does not work properly with these hardware components.

| | ITEM | REQUIREMENTS | | | | ITEM | REQUIREMENTS |
|---|---|---|---|---|---|---|---|
| 1 | **Mother Board** | **All Intel series chipset motherboard**<br>ASUS, GIGABYTE, or INTEL motherboards are recommended | | | 5 | **CPU** | Intel CPU |
| 2 | **RAM** | < 32 analog cameras | 2 GB or less | | 6 | Hard Disk | No limitation |
| | | >32 analog cameras | 2 GB to 3 GB | | 7 | **Audio Card** | No limitation |
| | | IP cameras | 3 GB to 4 GB | | 8 | **Power Supply** | ATX 600W or higher |
| 3 | **Display Card** | 512MB or 1GB Memory. Please choose ATI if using a decode card for TV-out. NVIDIA cards do not support overlay very well. | | | 9 | **Computer Case** | 4U Industrial Computer Case |
| 4 | **Monitor** | 1920×1080 pixels, HDMI/DVI/VGA support | | | 10 | **Keyboard** | PS/2 or USB |
| | | 1680×1050 pixels, HDMI/DVI/VGA support | | | 11 | **Mouse** | PS/2 or USB |
| | | 1440×900 pixels, HDMI/DVI/VGA support | | | 12 | **Net-card** | 100Mbps or 1000Mbps |
| | | 1280×1024 pixels, HDMI/DVI/VGA support | | | 13 | **CDRW/DVDRW** | Optional |
| | | 1280×768 pixels, HDMI/DVI/VGA support | | | 14 | **FDD** | Optional |
| | | 1024×768 pixels, HDMI/DVI/VGA support | | | 15 | **USB Disk** | Optional |

**Important! More than 95% of defected cards are damaged by overheating or electrical surges. We strongly recommend that you pay attention to 3 things when you install HVR system:**

- Choose a 4U industry computer case which embeds powerful cooling fans.

- Choose a power supply specifically designed for servers that can operate heavy workloads for long hours.
- Make sure to create a ground connection to your DVR computer case.

### 1.2.2. DVR card cable connection

All ILDVR 3000xx series DVR cards support audio recording, audio spy and remote chat. To perform these features, you need:

- Support 16KHz sample ratio microphone (MIC) for the DVR card.
- Full duplex PC sound card (PCI). (Both Server and Live Center).
- Normal PC MIC for the PC sound card. (Both Server and Live Center).
- Support 16kbps output ratio audio speaker. (Both Server and Live Center).

**Card to card cable wiring inside case**

- Refer to the diagram on the next page. Connect the audio cable between the DVR card and the PC sound card for audio spy in the HVR Server preview mode.
- Card #1's audio-out connects to the CD-in or AUX-in of your sound card (if you only have one DVR card, this is the only step you need to follow).
- Card #2's audio-out connects to card #1's audio-in.
- Card #3's audio-out connects to card #2's audio-in and so on.

**Microphone to BNC connection**

Connect the MICs (microphone) to the DVR card's BNC cable for audio recording and audio streaming.

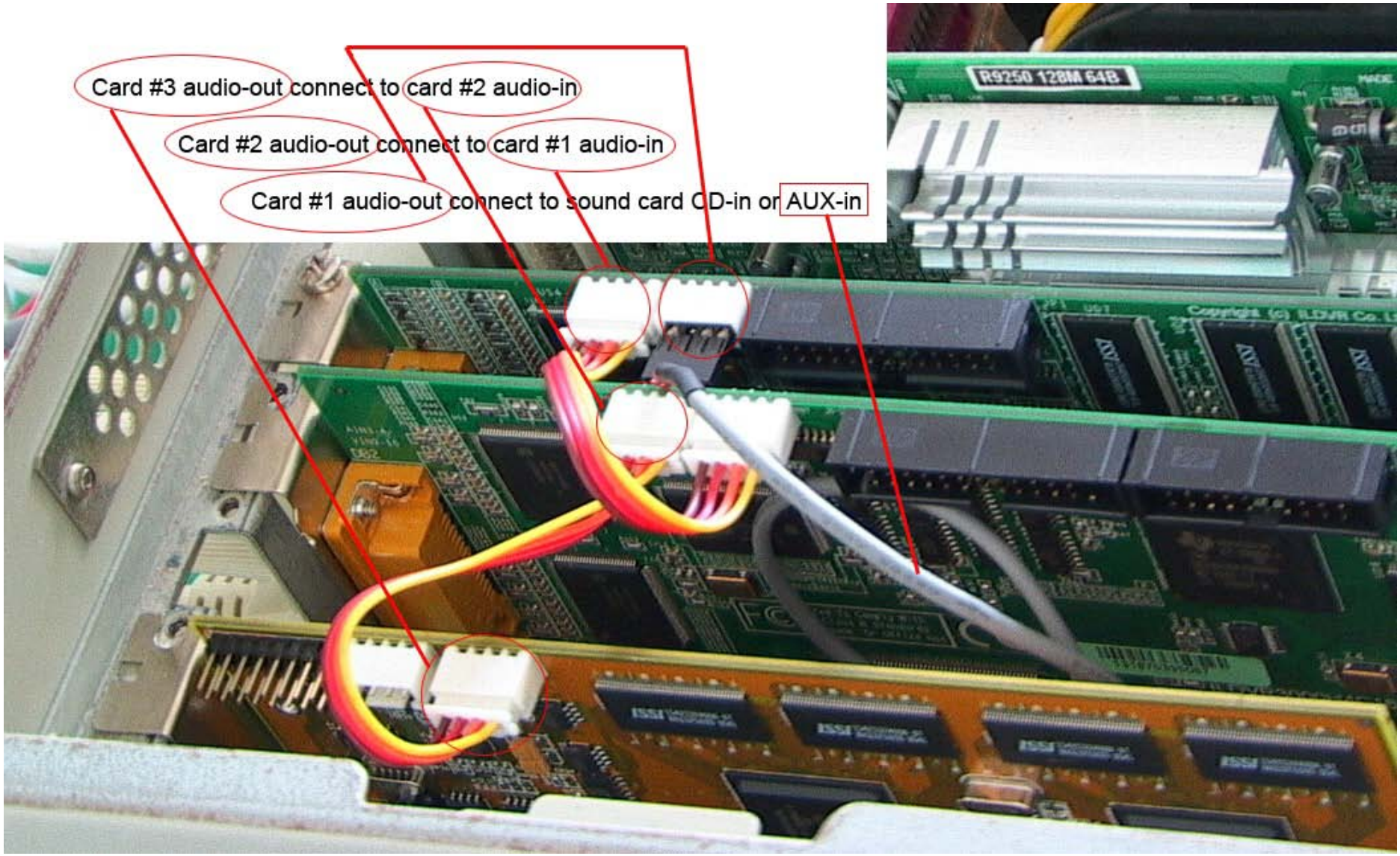
**PC audio card Microphone and speaker connection**

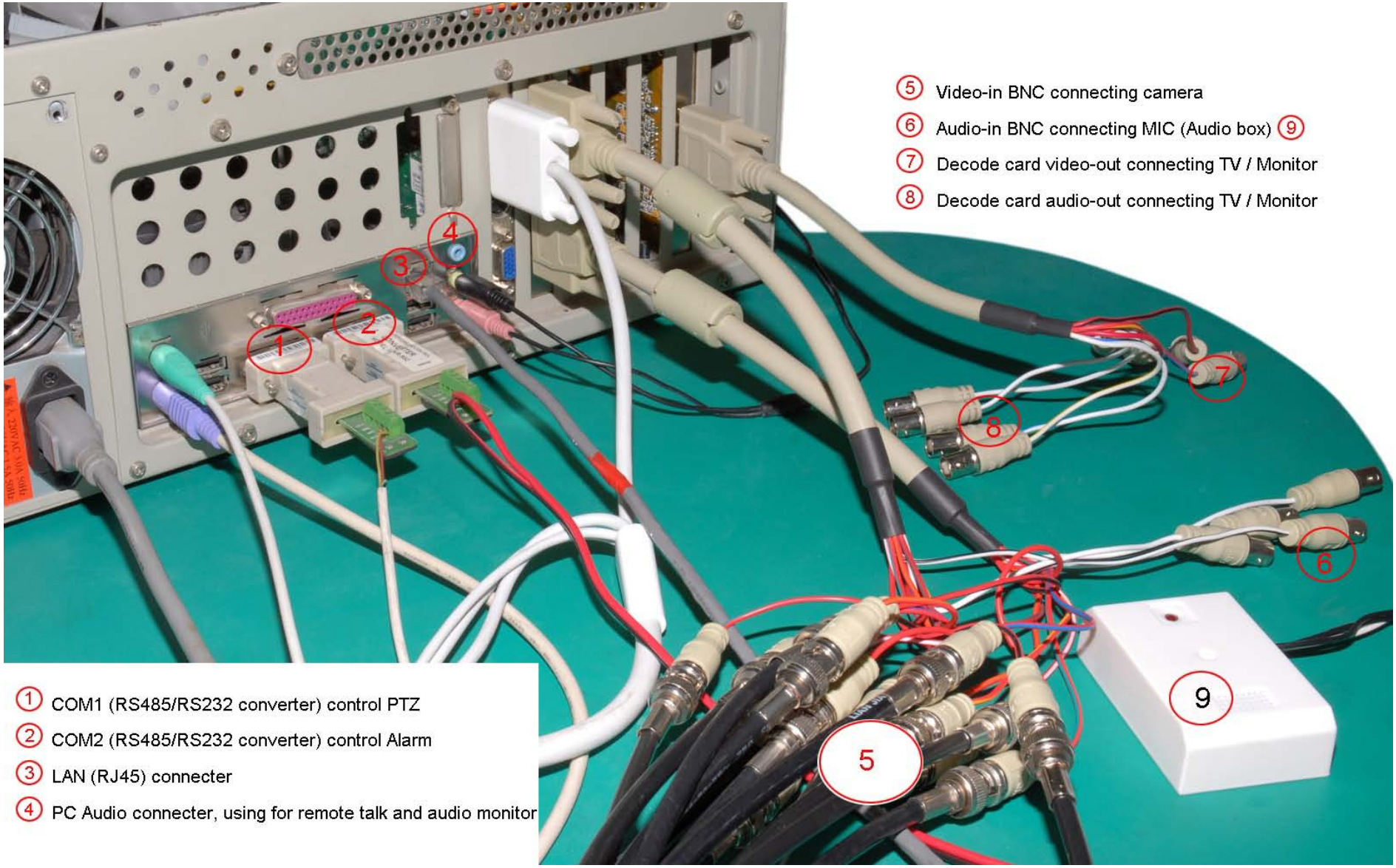
Connect the MIC (microphone) and speaker (or headphone) to the PC sound card for remote chat and remote audio spy.

**TV-out port usage**

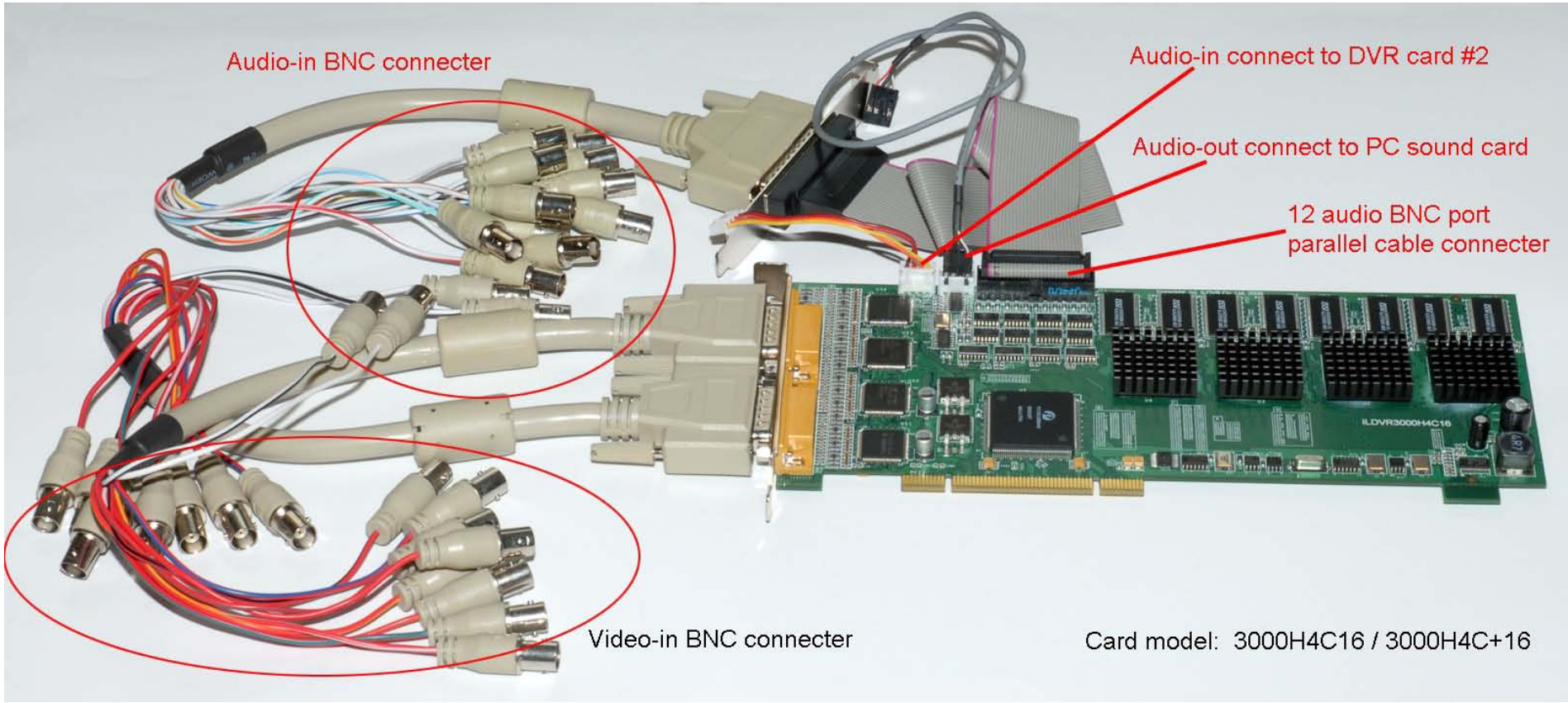
3008HT and 3008HTE support max. 8 ch TV-out, the video source must be onboard channel

3016HT and 3016HTE have 2 TV-out ports but only one can be used, it support max. 16 ch TV-out, the video source must be onboard channel


Card #3 audio-out connect to card #2 audio-in
Card #2 audio-out connect to card #1 audio-in
Card #1 audio-out connect to sound card CD-in or AUX-in
R9250 128M 64B




**16-channel cards (3000H4C16/C+16) audio cable wiring.**


Audio-in BNC connecter
Audio-in connect to DVR card #2
Audio-out connect to PC sound card
12 audio BNC port
parallel cable connecter
Video-in BNC connecter
Card model: 3000H4C16 / 3000H4C+16

### 1.2.3. Windows OS display property settings

After you finish the Window OS installation, please install all the hardware drivers, for example: **Intel 915/945/965/975 Chipset INF UPDATE, ATI or NVIDIA display driver, Net card driver (necessary) and audio card driver.** If your system does not have DirectX V8.0 or later installed, please go ahead and install it.

**Personalize display setting**

Set the font size to Smaller (96DPI). **Never set this to different font size because the HVR server software will not run properly**.

Set color quality to 32bit true color. Set screen resolution to one of following pixels: 1024×768, 1280×768, 1280×1024, 1440×900, 1680×1050, 1920×1080.

**Special setup in Windows VISTA / Win 7**

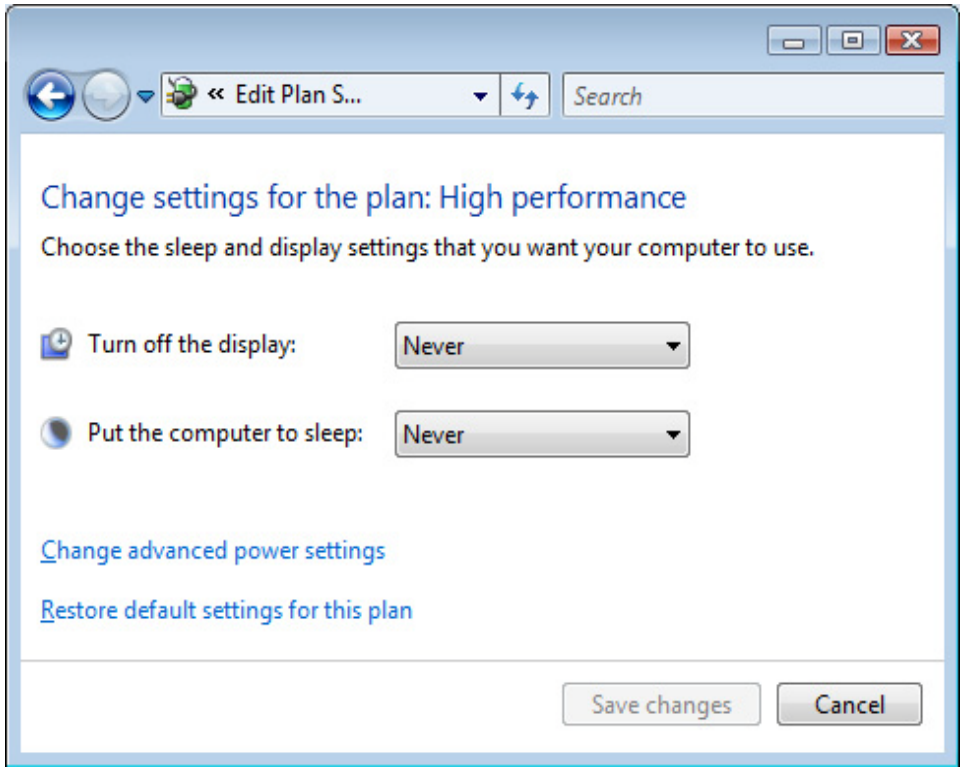
If you run the HVR Server v10.x on Windows Vista or Win 7, please complete the following three steps after finish the Windows Vista / Win7 installation. If you run the HVR Server and find that it is displaying abnormal video, please proceed to step 3 to correct the display setting. Refer to following illustration pictures.

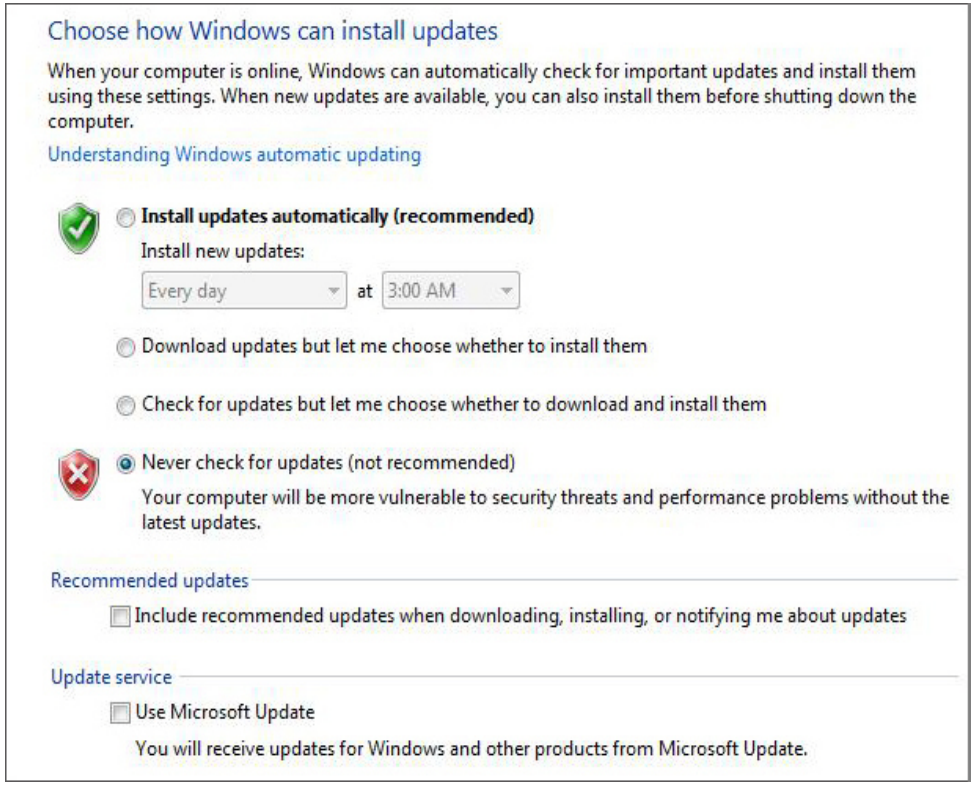
a. Turn off Windows Vista's UAC function and disable the Windows Sleep function.

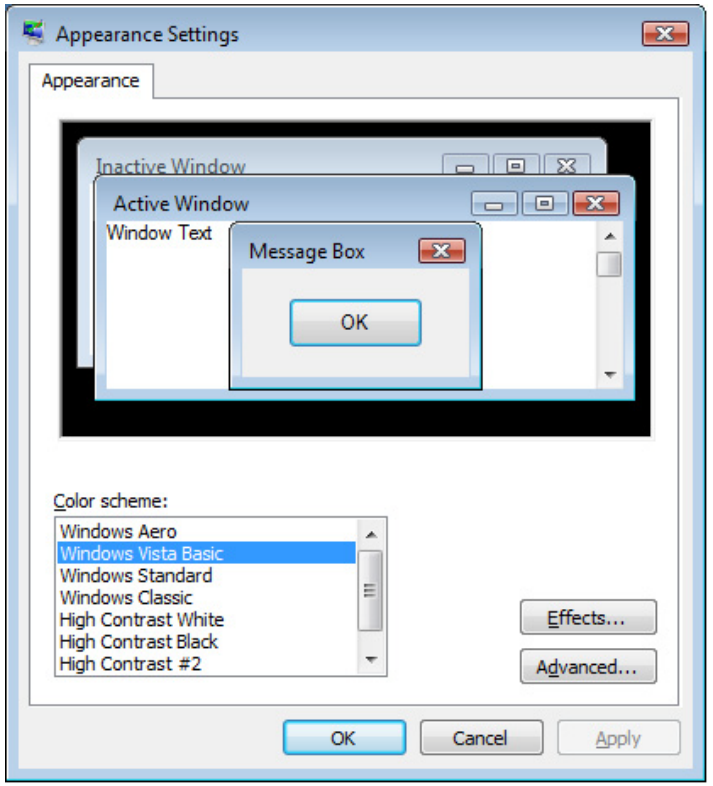
b. Disable the Windows Vista / Win 7 updates auto-check function to prevent Windows auto reboot frequently.

c. Change the **Windows Color and Appearance** setting to **Windows Classic** or **Windows Vista / Windows 7 Basic**.

count Control On or Off
Search
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel


« Edit Plan S...
Search
Change settings for the plan: High performance
Choose the sleep and display settings that you want your computer to use.
Turn off the display:
Never
Put the computer to sleep:
Never
Change advanced power settings
Restore default settings for this plan
Save changes
Cancel


Choose how Windows can install updates
When your computer is online, Windows can automatically check for important updates and install them using these settings. When new updates are available, you can also install them before shutting down the computer.
Understanding Windows automatic updating
Install updates automatically (recommended)
Install new updates:
Every day
at
3:00 AM
Download updates but let me choose whether to install them
Check for updates but let me choose whether to download and install them
Never check for updates (not recommended)
Your computer will be more vulnerable to security threats and performance problems without the latest updates.
Recommended updates
Include recommended updates when downloading, installing, or notifying me about updates
Update service
Use Microsoft Update
You will receive updates for Windows and other products from Microsoft Update.




For your attention, if you need protect your Windows system with password login. Please run registry editor (regedit.exe) then locate the key:

“HKEY_LOCAL_MACHINE\Software\Microsoft\WindowsNT\CurrentVersion\Winlogon”, you can manually input 4 String Value to enable Windows Auto Login

“AutoAdminLogon” set value to 1

“DefaultUserName” set value as your login ID

“DefaultPassword” set value as your password

“DefaultDomainName” set value as your domain (if you have)

### 1.2.4. Card Driver and HVR software installation

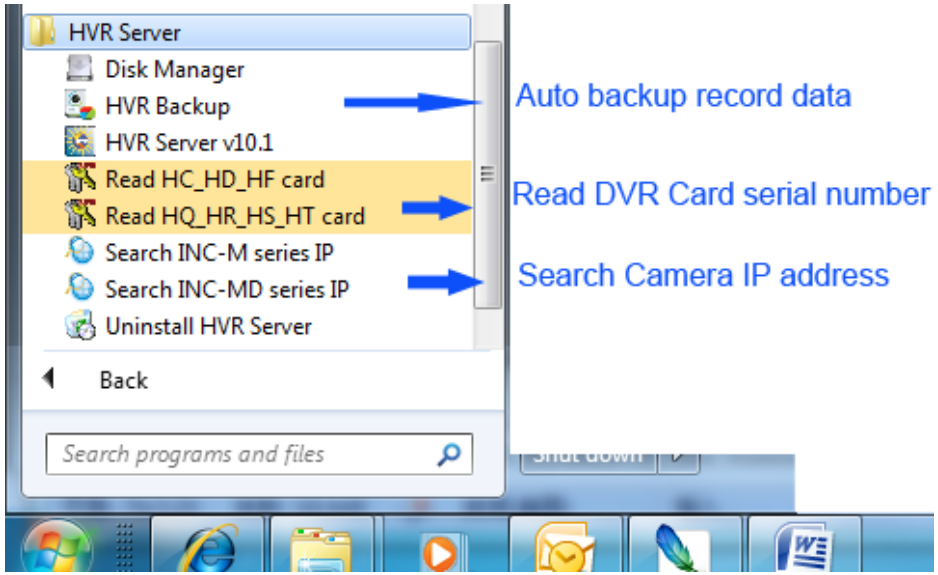
### Install DVR card driver

After finish installation of Windows OS, shut down the computer, plug in the DVR card. When Windows start up again, a message of "Find New Hardware" will pop up, please locate the driver path **[CD]…\Software & Drivers\HVR_Server_v10.x\Drivers** to install the driver. The driver folder name with x32 is applying for 32 bit Windows OS, The driver folder name with x64 is applying for 64 bit Windows OS

### Install HVR Server software

Locate the software path: **[CD]…\Software & Drivers**\(Language)**HVR_Server_v10.x\HVR_Server.msi** and double click the .msi file to initial the setup. After finishing the installation, Disk Manager will automatically run. You must build up the DVR file system otherwise the HVR Server cannot save the recorded video onto disks. You can also run the Disk Manager later on to organize your local disk drives whenever you feel the need to do so (see next section).

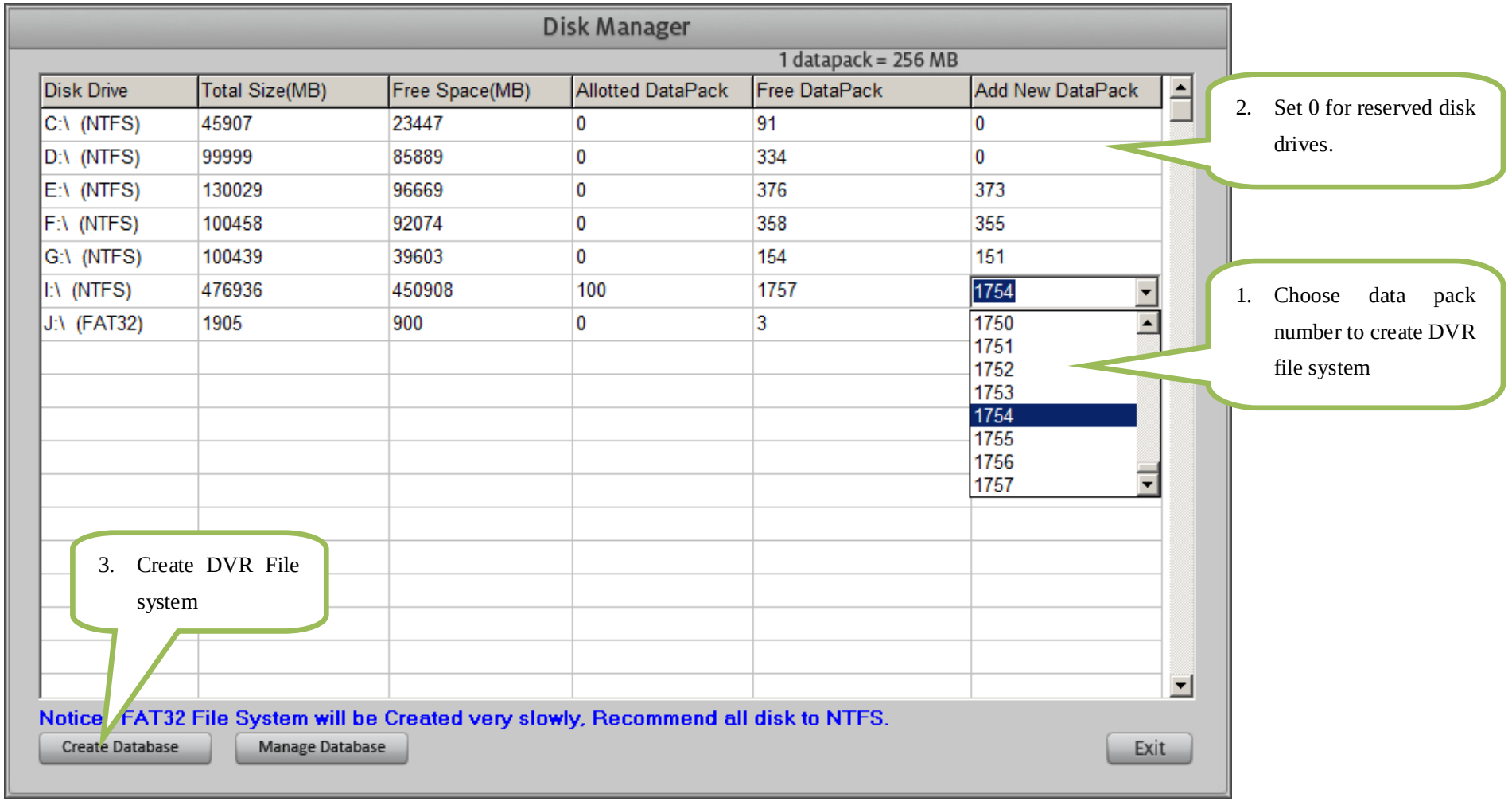
On the Windows desktop, there is a shortcut icon that will show up automatically after the installation is complete. Double click on it to run the HVR server program. In the program folder, you can find other useful utility software coming with the installation.




If you do not want the HVR system to auto run at windo ws startup, please delete the icon named "**HVR_Server_v10.x**" from the Startup menu. You can drag & drop the shortcut icon to the startup menu to recover the auto run feature after deleting it.

### 1.2.5. Disk Manager Operation

The HVR Server uses a pre-built DVR File System for video recording. You must first run **Disk Manager** to build up the DVR File System. The Disk Manager set default starting disk is from drive E (drive C:\ is for the operating system and drive D:\ is used for backup). The following illustration shows that Drive C: D: are never recording (Allotted DataPack=0). The row "Free DataPack" shows the free disk space that you can use to record. Please click the row "Add New DataPack" and select a number from dropdown list to assign data pack to DVR file system. Click "Create Database" after you assign the number. If you need reorganize the disk space or break the DVR file system, please delete the file folder _RECORD_DATA_ in every disk drive.

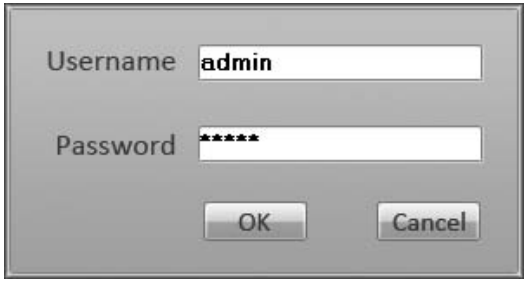


## 1.3. Program Main Interface

Before you press the **HVR** power button, please make sure that all of the connector interfaces are firmly installed.
After checking the connections are firmly installed, press the **HVR** system power button. The Power LED will turn on and the application's interface will display after 1 minute following the completion of the system diagnostics. The more encoding channels you have installed, the longer it will take for the application program to load.

If the HVR Server auto startup shortcut has been deleted from the startup menu, please double click on the icon, located on your windows desktop. Once the application program loads, you may proceed to the next step.

**Login**



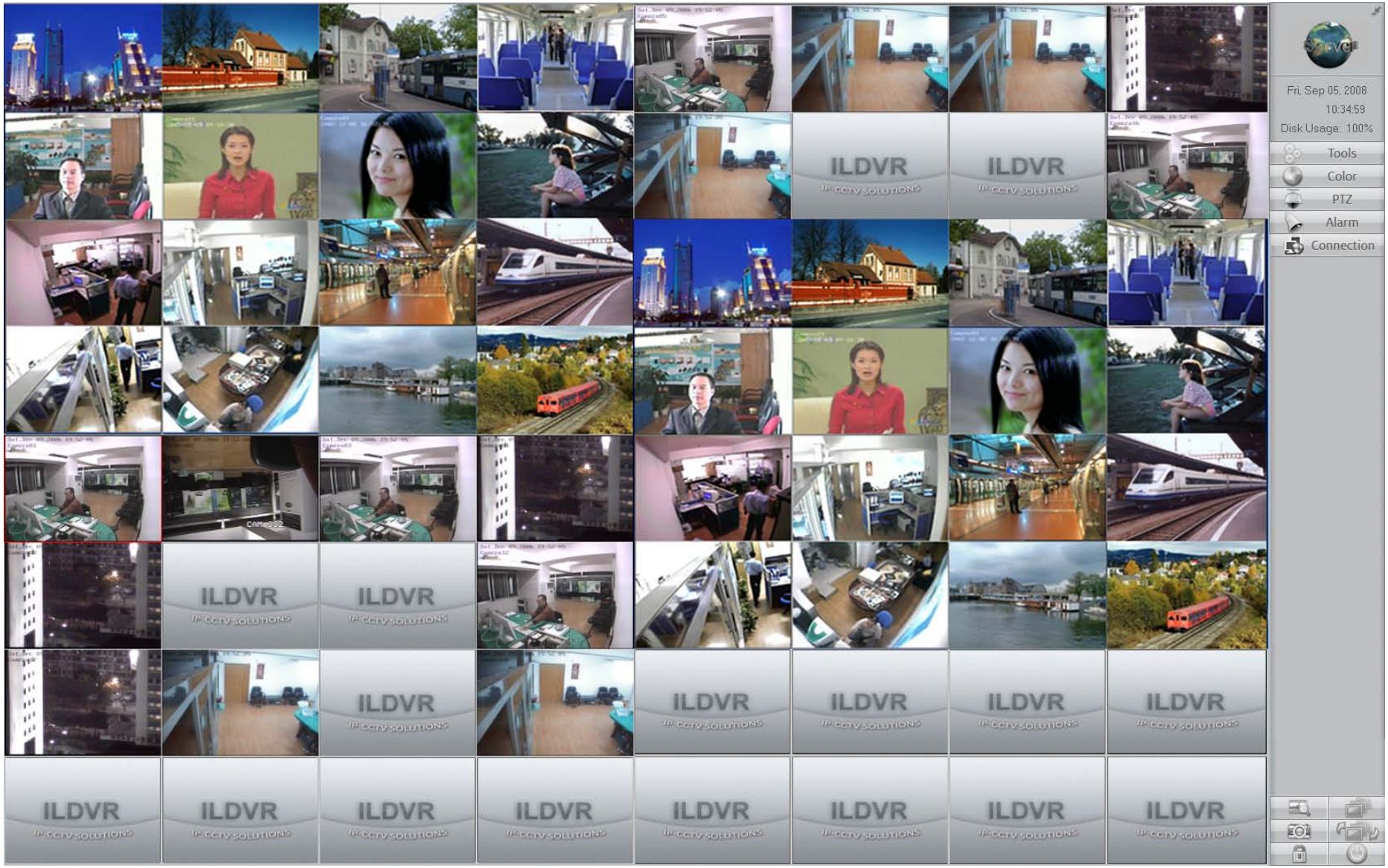

Press the button to display the login dialog box. Input your User ID and password, and then press OK.
The default User ID is "admin", with no password.
**Note: If the HVR system is not being configured in User Manage Mode, the lock button will be unusable.**
**Show tips:** when the mouse moves close to, or stops at a hot button, a short description tip will show up immediately.

**Full Screen Mode**

To enter Full Screen mode on one camera view, just double click on the camera window. Double clicking the screen again will revert back to its original state. To enter Full Screen mode so that the Control Panel disappears and only the camera views are showing, just right click on any of the camera windows and click on "**Full Screen Display**". Right clicking the camera window again and clicking on "**Full Screen Display**" will revert back to its original state.

**Recording status**

a. This icon indicates that the system is recording continually (**Continuous Record**)
b. This icon indicates that the system is recording in motion detect mode (**Motion Record**)
c. This icon indicates that the system is recording in sensor detect mode (**Sensor Record**)
d. This icon indicates that the system is recording manually (**Manual Record**)
e. If there is no icon on the screen picture, the system is not recording (**No Record**)

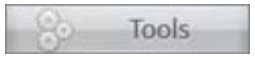



**Date and time**

Displays the date, time, and hard disk's free space status.

**Control Panel**

Press one of the 5 main icons to open each section of the control panel. Clicking the icon again closes that section of the control panel.



**Tools Panel**

System setup button – Click here to enter the system configuration interface.

Motion Detect setup button.

Electron Map setup button.

DVR card setup button – See Appendix C for more details.

POS/ATM system setup button

ACU (Access Control Unit) system setup button

POS & ACU event viewer button.

Enter IP device in order to add or delete an interface.

Switch button for TV-out Matrix Groups.

Emergency record button records video for 30 seconds.

Manually record with this button.

Press this button to write to the On Duty Log.

View Log button.

Remote Talk button – Click this button to begin a remote talk session.

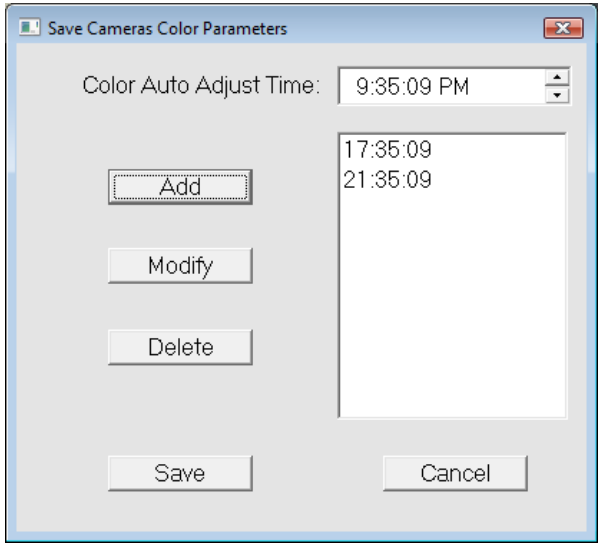
Run DVD/CD backup program.

Run external program.

Press this button to open Windows Explorer.

Switch button for pre-defined display group.

Set camera color auto adjust time table. After finish adjusting the cameras color, click this button to enter “Save Cameras Color Parameters” interface, set a time then click “Add” button, the current color parameters of all cameras are saved and will be restored at the time you set. You must exit this interface and enter again to save other color parameters.




**Color/Audio Adjust Panel**

Brightness
Contrast
Tone
Saturation
Voice

Move slider to adjust color settings.
Click color icon to restore default value.
Copy the current camera color settings to other cameras by clicking the "**Copy Settings To**" button.

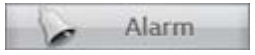
**PTZ Control Panel**

Light on/off button. Blower (windshield wiper) on/off button.

Zoom in/Zoom out
Focus in/Focus out
Iris change

Click the direction icon to move PTZ in different directions. Use the circle button if you would like to initialize auto scan. Some protocols, such as Pelco-D, do not take advantage of this function. The  icon displays the active channel number on the screen. In this example, the PTZ camera is listed as 1.

Move the slider to adjust the Pan/Tilt speed. Press the button and select "**Preset Setup**" to bring up the preset setup interface. See section 9 for more information.




**Alarm Control Panel**

A **grey** number icon indicates a sensor or D/O port that is not available for use. A **light blue** number icon indicates that this sensor or D/O port is working armed mode. A **dark blue** number icon means this sensor or D/O port is either alarming, or is being operated manually.

**Quick control buttons (on the bottom left hand corner)**

Playback button – Click this button to enter log file searching mode. If your HVR system supports multiple monitors, you can set the playback interface display on any one of the extension monitor, while the preview cameras show on the main monitor.

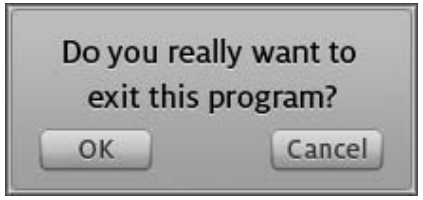
Capture image button.

Split viewing window button – Change the number of viewing windows with this button.

Split-view Auto-switch button – Click this if you would like to have the screen automatically switch through different camera groups.

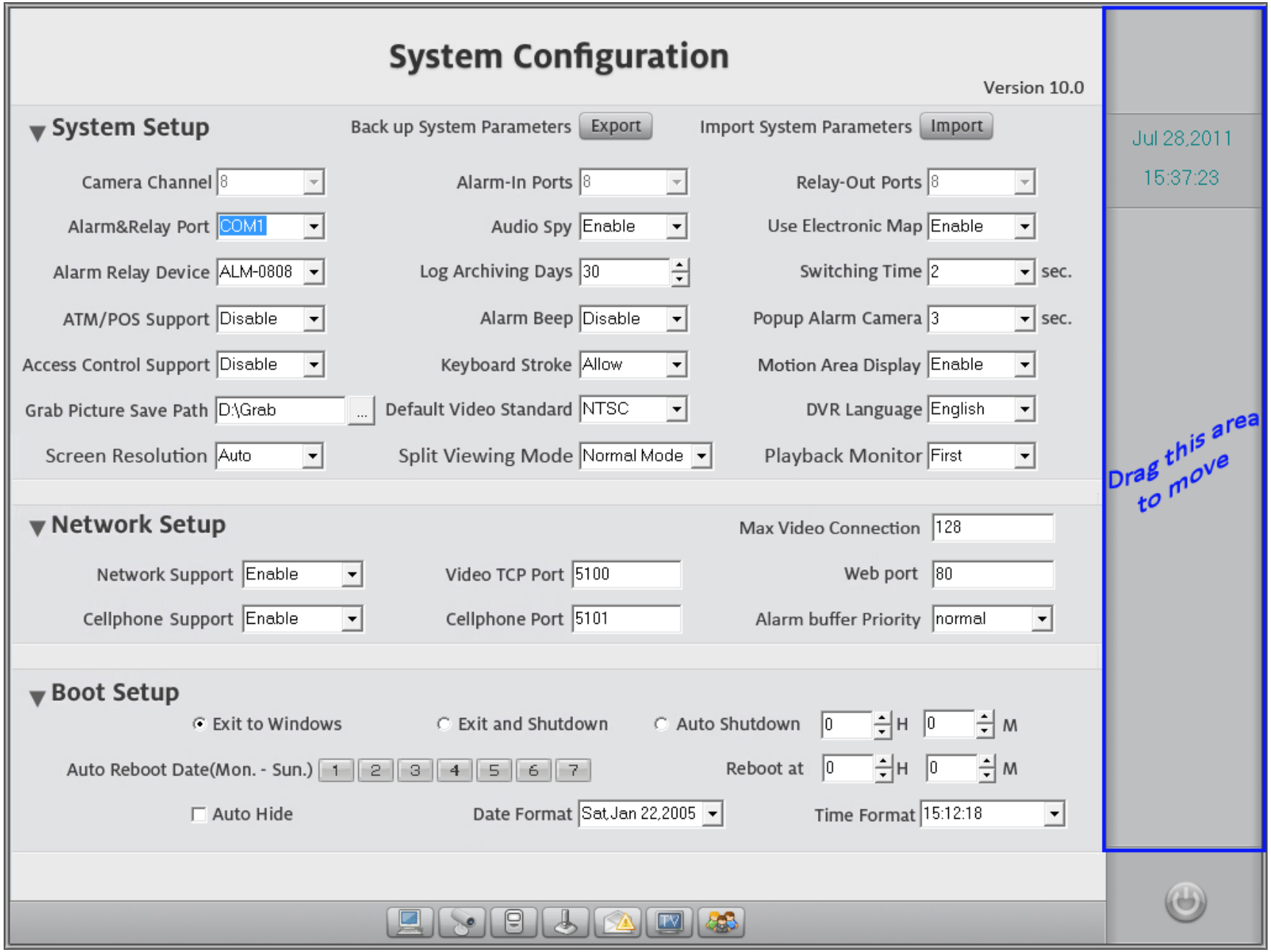
Lock button – Click this button to lock or unlock the system.

Exit program button – Clicking this button will display the following dialog interface:




Click "**OK**" to exit HVR system.

## 1.4. HVR Server Configuration

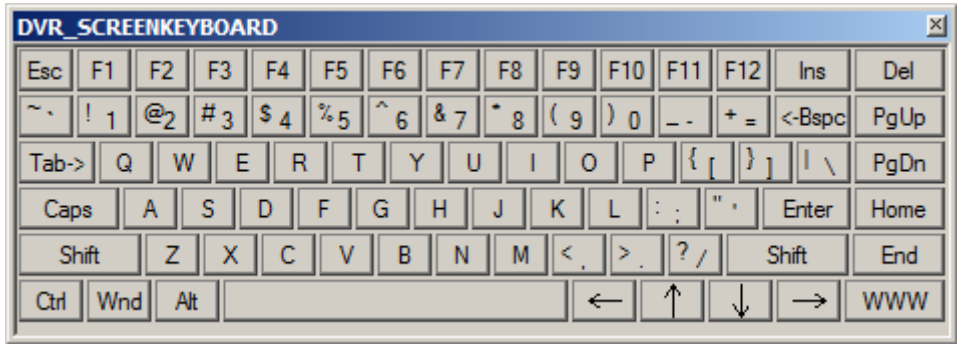

System Configuration
Version 10.0
System Setup
Back up System Parameters
Export
Import System Parameters
Import
Camera Channel 8
Alarm-In Ports 8
Relay-Out Ports 8
Alarm&Relay Port COM1
Audio Spy Enable
Use Electronic Map Enable
Alarm Relay Device ALM-0808
Log Archiving Days 30
Switching Time 2 sec.
ATM/POS Support Disable
Alarm Beep Disable
Popup Alarm Camera 3 sec.
Access Control Support Disable
Keyboard Stroke Allow
Motion Area Display Enable
Grab Picture Save Path D:\Grab
Default Video Standard NTSC
DVR Language English
Screen Resolution Auto
Split Viewing Mode Normal Mode
Playback Monitor First
Network Setup
Max Video Connection 128
Network Support Enable
Video TCP Port 5100
Web port 80
Cellphone Support Enable
Cellphone Port 5101
Alarm buffer Priority normal
Boot Setup
Exit to Windows
Exit and Shutdown
Auto Shutdown 0 H 0 M
Auto Reboot Date(Mon. - Sun.) 1 2 3 4 5 6 7
Reboot at 0 H 0 M
Auto Hide
Date Format Sat,Jan 22,2005
Time Format 15:12:18
Jul 28,2011
15:37:23
Drag this area to move

### 1.4.1. System Configuration

In the **Tools Panel**, press the button to enter the HVR's **System Configuration**. If your HVR system supports multiple monitors feature, the setup interface will display on the second monitor. To move the interface please drag & drop the right side, see following illustration.

**System Setup**

- **Backup System Parameters**: Saves the system settings for backup – Use this feature to keep your settings when upgrading or reinstalling software.
- **Import System Paramenters:** This restores your system setting from a backup file.
- **Camera Channel:** This displays the total number of camera channels.
- **Alarm-in Ports:** This displays the number of sensors (D/I).
- **Relay-out Ports:** This displays the number of alarms (D/O).
- **Alarm & Relay Port:** Select the COM port used for the alarm control device.
- **Alarm Relay Device:** Select an alarm control device.
- **Audio Spy:** Enable or disable the audio monitor in preview mode.
- **Use Electronic Map:** Select this to display the Electronic Map when an alarm is set off.
- **Log Archiving Days:** Saves the System Log for this many days (max 99 days).
- **Switching Time:** Set split-view auto-switch interval (max 180 Sec).
- **Alarm Beep:** This enables or disables the mini-speaker on the mother board to beep when there is an alarm.
- **Popup Alarm Camera:** Setup an alarm camera to show the time whenever it pops up. This setting only takes effect when you right click on a camera view and selecting "Start alarm popup".
- **ATM/POS Support:** Enables or disables ATM/POS support. Set this to enable to activate the POS setup button on the main interface.
- **Access Control Support:** Enable or disable Access Control Unit (ACU) support. Set this to enable to activate the ACU setup button on the main interface.
- **Keyboard Stroke:** When setting the Keyboard Stroke to "**Allow**", you are enabling it to be used normally. Setting this to "**Block**" will prevent anyone from using the PC keyboard function keys. In "**Block**" mode, the HVR interface is permanently on the screen. You cannot minimize it or shift to your Windows Desktop. The keyboard is only used to input 26 alphabet letters and digits 0 through 9.


DVR_SCREENKEYBOARD
Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Ins Del
~ ` ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 ( 9 ) 0 _ - + = <-Bspc PgUp
Tab-> Q W E R T Y U I O P { [ } ] | \ PgDn
Caps A S D F G H J K L : ; " ' Enter Home
Shift Z X C V B N M < , > . ? / Shift End
Ctrl Wnd Alt ← ↑ ↓ → WWW

For security reason, sometime the PC keyboard will be disabled on the DVR system. In this case, if you need to input something like a username and password, all you have to do is just double click on the blank Input Box and it will automatically bring up the DVR soft-keyboard (shown left).

- **Motion Area Display:** Set enable to display the motion areas when camera detect motion movement. This setting is only applied to analog camera.
- **Default Video Standard:** Setup default video standard to match decode card TV-out settings.
- **HVR Language:** Change language setting is only available for software versions that support multiple languages.
- **Grab Picture Save Path:** Set the folder you would like to save all the captured images in. If you don't set a path, the HVR uses the default path **D:\Grab\camera_name**. The **camera_name** will be the alias you put in the Camera Setup interface.
- **Monitor Resolution:** Set program main interface to fit the Windows OS display resolution.
- **Monitor Viewing Mode:** Select normal screen or wide screen mode according your monitor type.
- **Playback Monitor:** Choose playback monitor. Before you do configuration here, please first go to Windows Display Property to configure every monitor's display resolution and sequence. Playback program will auto check the display resolution then show up as proper resolution. When you enable multiple display, the SETUP interface also move to the second monitor.

**Network Setup**

- **Network Support:** This enables or disables network connections.
- **Video TCP Port:** Set this to the TCP/IP port you would like to use for connecting remotely with Live Center.
- **Web Port:** Set this to the TCP/IP port you would like to use to connect through Internet Explorer.
- **Cellphone Support:** Enable or disable PDA/mobile phone connection
- **Cellphone Port:** Set this to the TCP/IP port you would like to use for cell phone network access.
- **Max. Video Connection:** Set maximum connection of cameras that the server support including IP Matrix Client.
- **Alarm Buffer Priority:** Set high priority means the server will buffer and transfer more frames on network but it needs more bandwidth. Recommended settings is Realtime for LAN and Smooth for WAN

**Boot and Shut Down**

For system stability, the system can be set to restart automatically.

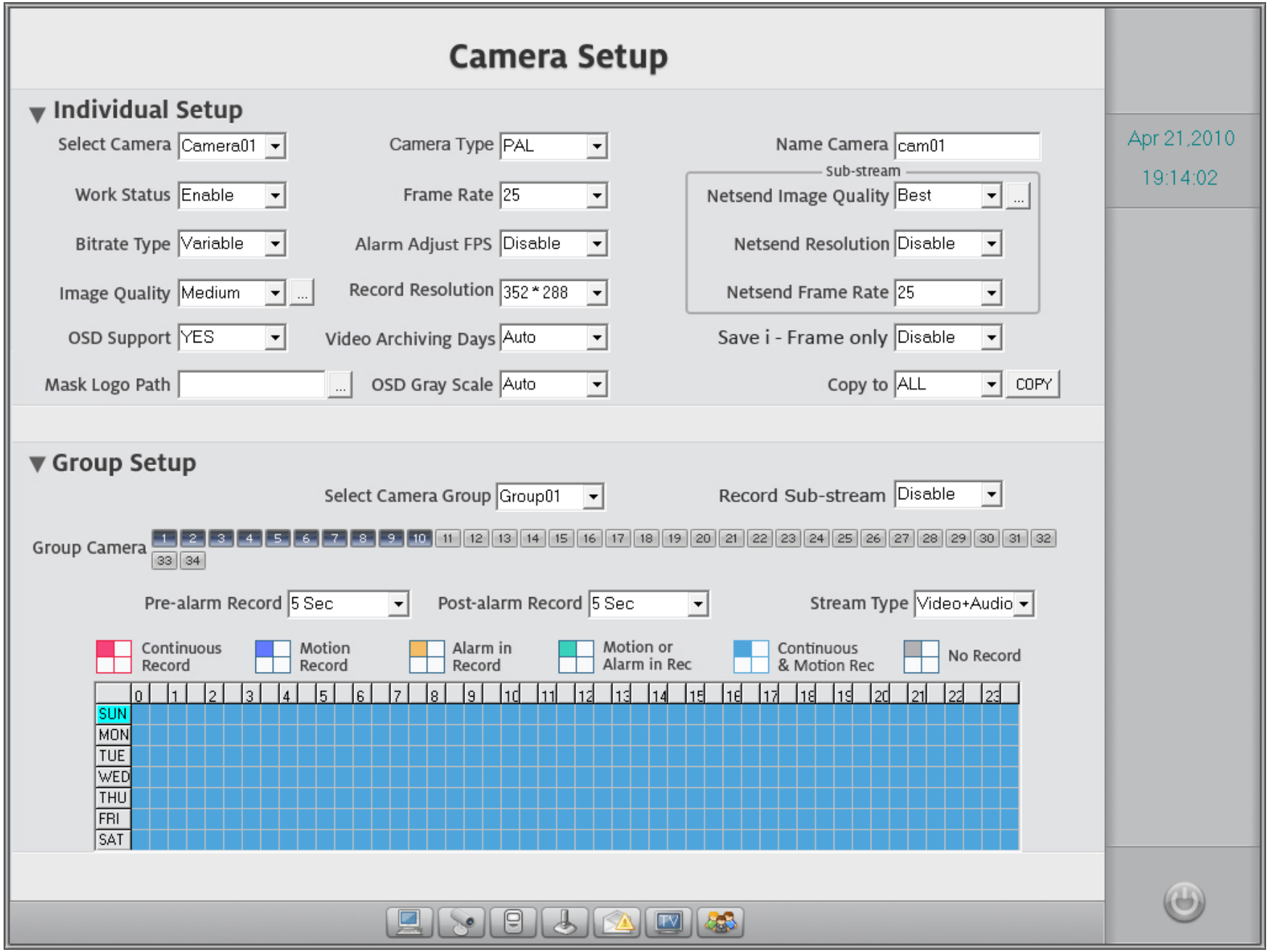
- **Exit to Windows:** Select this if you would like HVR Server to automatically exit to Windows.
- **Exit and Shutdown:** Select this if you would like HVR Server to exit and shut down the computer.
- **Auto Shutdown (hour, minute):** Select the appropriate time you would like the system to automatically shutdown.
  **Auto reboot date (Monday to Sunday):** Select the appropriate day or days you would like the system to automatically restart.
  **Reboot at (hour, minute):** Select the appropriate time you would like the system to automatically restart.
- **Auto hide:** Select this if you would like HVR Server to minimize after starting up.
- **Date Format:** Select the date format you would like to use.
- **Time Format:** Select the time format you would like to use.

### 1.4.2. Camera Setup

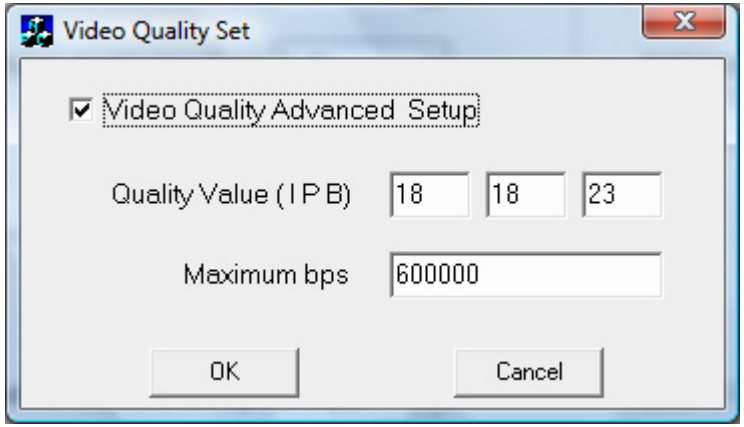
**Individual Setup**

**For your attention, individual setup section is only applied for analog camera that connects to DVR Card, not applied for IP cameras.**

- **Select camera:** Select the channel number to change the settings for.
- **Camera Type:** Set camera video standard.
- **Name Camera:** This is the channel's OSD (**On-Screen Display**). Write the description for this camera here (example, "Front Door").
- **Work Status:** Select enable if you want to enable the camera to record. Selecting disable will disable the camera from functioning.
- **Bitrate Type:** Select which bit rate mode you want to record in. VBR/CBR mode, VBR=Variable bit rate, CBR=Constant bit rate. For better network streaming performance and better image quality, please choose VBR.
- **Frame Rate:** Select the recording frame rate (fps) you would like to use – Only available in VBR mode.
- **Alarm Adjust FPS:** Set alarm recording frame rate. For the purpose to save disk space, you can set low fps in above normal recording Frame Rate, here you set high frame rate to get real time video when alarm happens.
- **Record Resolution:** Select the recording resolution you would like to use. Pick 352*240 for CIF resolution, or 704*480 for D1 resolution.


Camera Setup
Individual Setup
Select Camera
Camera01
Camera Type
PAL
Name Camera
cam01
Work Status
Enable
Frame Rate
25
Sub-stream
Netsend Image Quality
Best
Bitrate Type
Variable
Alarm Adjust FPS
Disable
Netsend Resolution
Disable
Image Quality
Medium
Record Resolution
352 * 288
Netsend Frame Rate
25
OSD Support
YES
Video Archiving Days
Auto
Save i - Frame only
Disable
Mask Logo Path
OSD Gray Scale
Auto
Copy to
ALL
COPY
Apr 21,2010
19:14:02
Group Setup
Select Camera Group
Group01
Record Sub-stream
Disable
Group Camera
Pre-alarm Record
5 Sec
Post-alarm Record
5 Sec
Stream Type
Video+Audio
Continuous Record
Motion Record
Alarm in Record
Motion or Alarm in Rec
Continuous & Motion Rec
No Record
SUN
MON
TUE
WED
THU
FRI
SAT

- **Video Archinving Days:** Select how many days you want HVR Server to record for. For example, if you set this to 7 days, once the 7 days are up it will delete the first archiving day to make room for new video data to be saved. If you run out of disk space before the 7 days, HVR Server will stop recording and issue a warning to notify you of the problem.
- **OSD Support:** Select **YES** if you would like the OSD date and time to be recorded on top of the video.
- **OSD Gray Scale:** This is to set the color of the OSD display. Setting this to Auto will change the OSD to black if it's behind a white background and white if it's behind a black background. For a solid color OSD, chose between 0 (all black) and 255 (all white).
- **Mask Logo Path:** If you would like to apply a watermark feature, click the ... button and locate the logo you would like to use. The picture must be edited to fulfill the this requirements: Width and length must be in multiples of 16 pixels such as 96×80 pixel and maximum no more than 128 pixels. The watermark picture must be saved as 24bit BMP file.
- **Image Quality:** Select the recording image quality. Click the ... button to bring up the following advanced bit rate control dialog box.




You usually don't need to change the default settings.

The following 3 items are sub-stream settings. These settings are unavailable for DVR cards that do not support dual stream (3000H4C16, 3000H4G8 and 3000H4G16).

- **Netsend Image Quality:** Select the network streaming image quality you would like to use. Click the ... button for advanced bit rate control.
- **Netsend Resolution:** Set the network streaming image resolution here. Select 352*240 for CIF resolution, or 704*480 for D1 resolution.

For the purpose of viewing high quality images remotely, it is best to use main stream for network streaming. To enable main stream viewing, set this to "**Disable**". Live Center right-click menu cannot adjust image quality of main stream. Refer to section 2.11.1.

For the purpose of viewing smooth video remotely on a low bandwidth network, please choose sub-stream for network streaming. To enable sub-stream, chose either CIF (352*240) or QCIF (172*120).

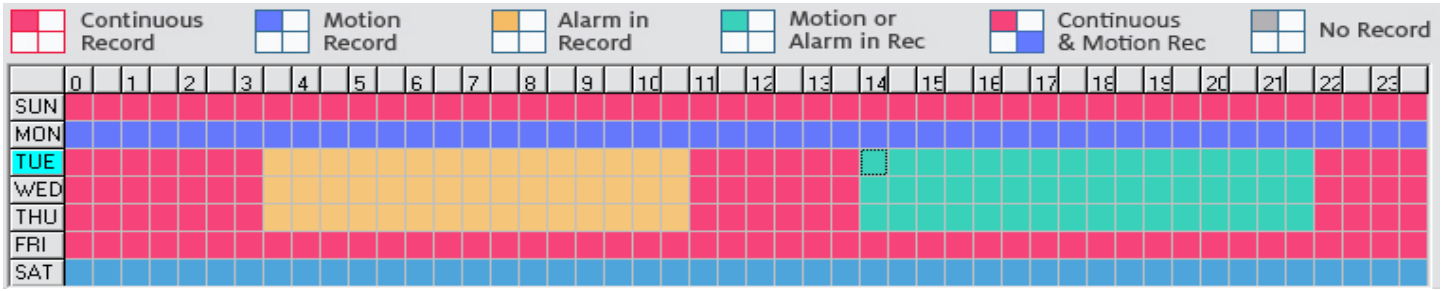
- **Netsend Frame Rate:** Select the network streaming frame rate you would like to use.
- **Save i-Frame only:** Select "**Enable**" if you would like to save video data at one frame per second. This is used when hard disk space is very limited.
- **Copy to:** This button saves the current camera settings to all cameras or to selected cameras only.

**Group Setup**

The HVR system manages all cameras and their working time table by groups. One group of cameras uses one schedule. If you add one camera into two different groups, the first operation will be voided. Only the second setup will function.

- **Select camera group:** Here you will select a group number to setup.
- **Record Sub-stream:** Select "**Enable**" if you would like to record the sub-stream video for your group. The default is set to "**Disable**".
- **Group Camera:** Click the camera number(s) you would like to add to your group.
- **Steam Type:** Select the video and audio recording mode for your group.
- **Pre-alarm record:** Select the time would like to start recording before an alarm is triggered. When the HVR system is in **Motion Detect mode** or in Sensor Detect mode, it can record video prior to the alarm being triggered.
- **Post-alarm record:** Select the time you would like to stop recording after an alarm has been triggered. When the HVR system is in **Motion Detect mode** or **in Sensor Detect mode**, it can stop recording video after the alarm has already ended.

**Schedule Setup**



Tips: One block of pane equals to half an hour. First, click the icon of whichever type of record mode you would like to use. Then go ahead and click schedule diagram, holding down the left mouse button and moving it to select an area (drag & drop).

a. **Continuous Record - : ** The HVR System is always recording video. (e.g. Sun. and Fri.)
b. **Motion Detect Record - : ** The HVR System begins to record video only when it detects a moving object. (e.g. Mon.)
c. **Alarm in Trigger Record - : ** The HVR System begins to record video only when there is a sensor triggered alarm. (3:30 to 11:00 in Tue. Wed. Thu.)
d. **Motion Detection or Alarm in - : ** The HVR system begins to record with it either detects a moving object or one of the sensors has been triggered.
e. **Continuous and Motion Record - : ** The HVR system works as continuous record but meanwhile save the motion detect information for smart search.
f. **No Record - : ** The HVR System stops recording any video.

To set up "**Motion Detect Record**", click the icon and select your schedule time by left clicking the mouse button and moving it to select an area. For example, the above picture implies that Monday is set on motion detect record mode and Sunday is set on continuous record mode. Tuesday, Wednesday, and Thursday, from 3:30 to 11:00, they have set up their schedule to operate on sensor record mode, while from 14:00 to 22:30, they're schedule is set to both motion detect record mode and senor detect record mode. Everything else is scheduled to record normally on continuous record mode. To record motion detect alarm video from an IP camera, please refer to section 1.5 (Motion tab) to set an IP device locally.

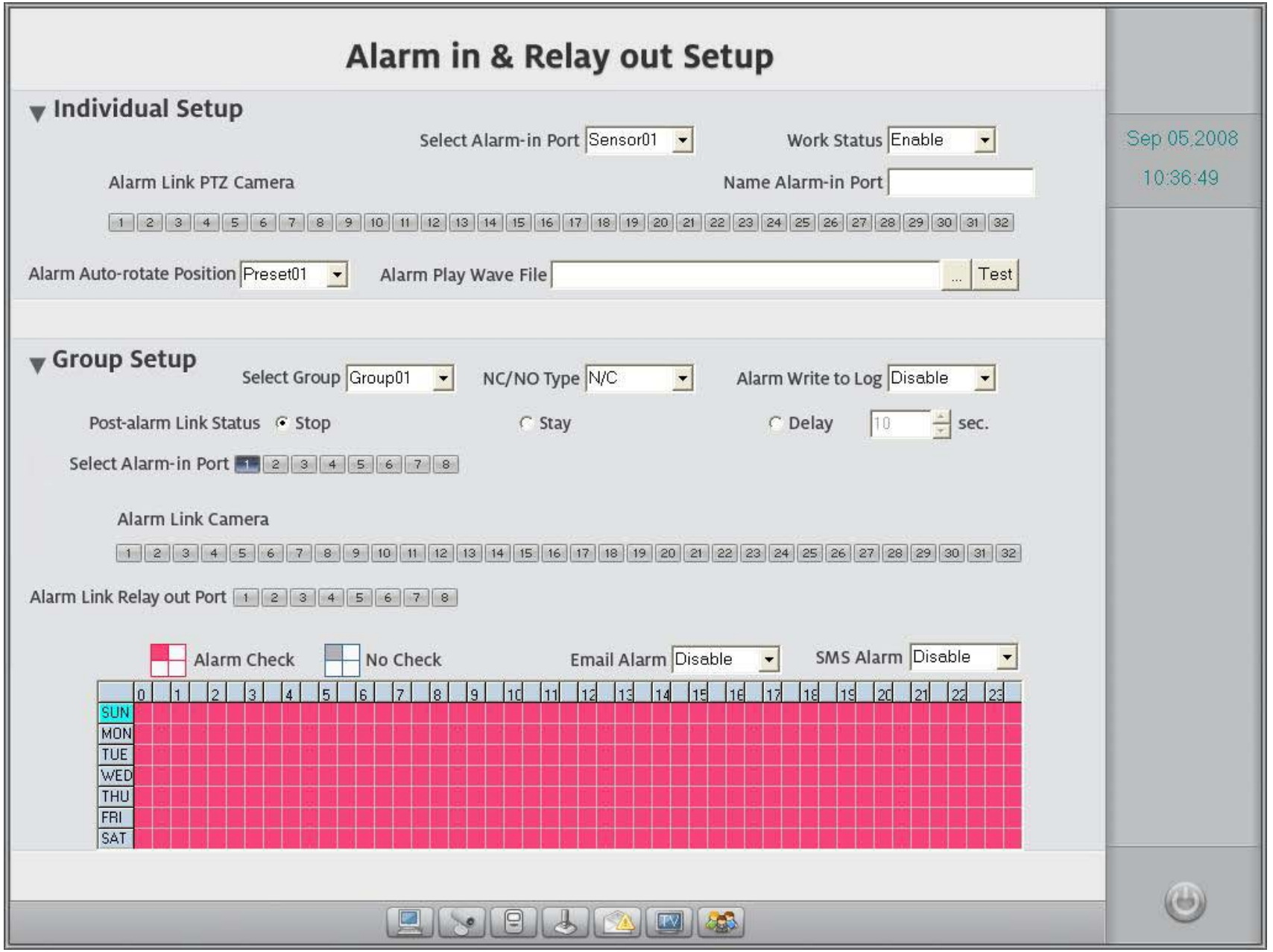
**Note: The schedule for Alarm in Trigger Record (or Sensor Record) must match the schedule for Check Alarm in the Schedule Setup interface. If it is not set up this way, it will not work properly. For example, if you setup the HVR system with No Check (alarm) from 8:00 to 9:00 in Wed. even sensor alarm happen in this hour, HVR doesn't record any video in this hour.**

### 1.4.3. Alarm In and Relay Out Setup

The **Alarm In and Relay Out** function needs an alarm controller in order to work. We suggest an 8, 16 or 32-port alarm controller device.

**Individual Setup**

Select Alarm-in Port: Select a sensor to configure.


Alarm in & Relay out Setup
Individual Setup
Select Alarm-in Port Sensor01
Work Status Enable
Alarm Link PTZ Camera
Name Alarm-in Port
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Alarm Auto-rotate Position Preset01
Alarm Play Wave File
...
Test
Sep 05,2008
10:36:49
Group Setup
Select Group Group01
NC/NO Type N/C
Alarm Write to Log Disable
Post-alarm Link Status
Stop
Stay
Delay
10
sec.
Select Alarm-in Port 1 2 3 4 5 6 7 8
Alarm Link Camera
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Alarm Link Relay out Port 1 2 3 4 5 6 7 8
Alarm Check
No Check
Email Alarm Disable
SMS Alarm Disable
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
SUN
MON
TUE
WED
THU
FRI
SAT

- **Work Status:** Check "**Enable**" here if you would like to enable the alarm port.
- **Name Alarm-in Port:** In this box, put in a description or name of the sensor.
- **Alarm Link PTZ Camera:** Select which Speed Dome corresponds with this sensor alarm.
- **Alarm auto-rotate Position:** Select which preset you would like to use for the alarm's automatic rotation here (only available if preset is saved). If an alarm goes off, you can link a PTZ camera to move to a different position with a preset. To learn how to do this, please read section **1.4.4 - PTZ Setup and Motion Alarm.**

**Note: When you install a PTZ Camera, please do not use preset #1 to link any alarm triggers. If you use preset #1, the camera configuration menu will always pop up. This happens because the PTZ protocol Pelco-D was designed to use preset #1 for the popup configuration menu. If you need to utilize the Alarm Link PTZ Auto-rotate function, please choose preset #2 or greater.**

- **Alarm Play Wave File:** Setup the audio file path to play an alarm warning sound.

**Group Setup**

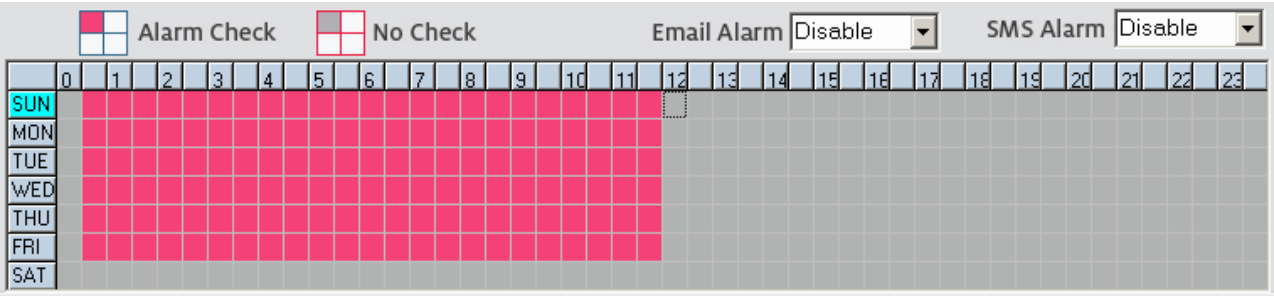
The HVR system manages all sensors (alarm in) and their working time table by groups. These groups act just like the camera groups we already discussed earlier in Section 1.4.2. Each group of sensors uses its own schedule. If you add the same sensor in two different groups, the sensor in the second group will void the sensor in the second group.

- **Select Group:** Select a group number to configure.
- **NO/NC Type:** Select an N/C or N/O alarm type.
- **Alarm Write to Log:** Enable or disable writing to the alarm log.
- **Post-alarm Link Status ( Stop, Stay, Delay):** Choose what you would like to do with the HVR System's alarm linkage mode after an alarm time-out. Clicking "**Stop**" tells the system to stop the alarm alert immediately after an alarm time-out. "**Stay**" tells the system to continue the alarm alert after an alarm time-out. Clicking "**Delay**" will tell the system to extend the alarm alert short time (e.g. 10 seconds), then stopping the alert after an alarm time-out.
- **Select Alarm-in Port:** Add sensor(s) to above selected group.
- **Alarm Link Cameras:** Here, you add linkage cameras to the above mentioned group. One camera can be chosen in multiple groups. These cameras respond to groups of sensors to perform "**Sensor Record**" according to the schedule of this group. Any one of the sensors in a group can trigger all camera links to this group.
- **Alarm Link Relay-out Port:** This adds an alarm device (alarm out port) to the above mentioned group. This operation works exactly the same like "**Alarm Link Camera**". One Relay Out port can be reduplicate chosen in multiple groups. These ports respond to the group of sensor(s) to do the job "**trigger alarm out**" according

to the schedule of this group. Any one of the sensors in a group can trigger all ports link to this group.

- **Email Alarm:** Enable or disable email alarm support.
- **SMS Alarm:** Enable or disable SMS alarm support.

**Schedule Setup** (Example used below)




Tips: One block of pane equals to half an hour. The procedures for this are identical to the way we setup the previous record schedule.

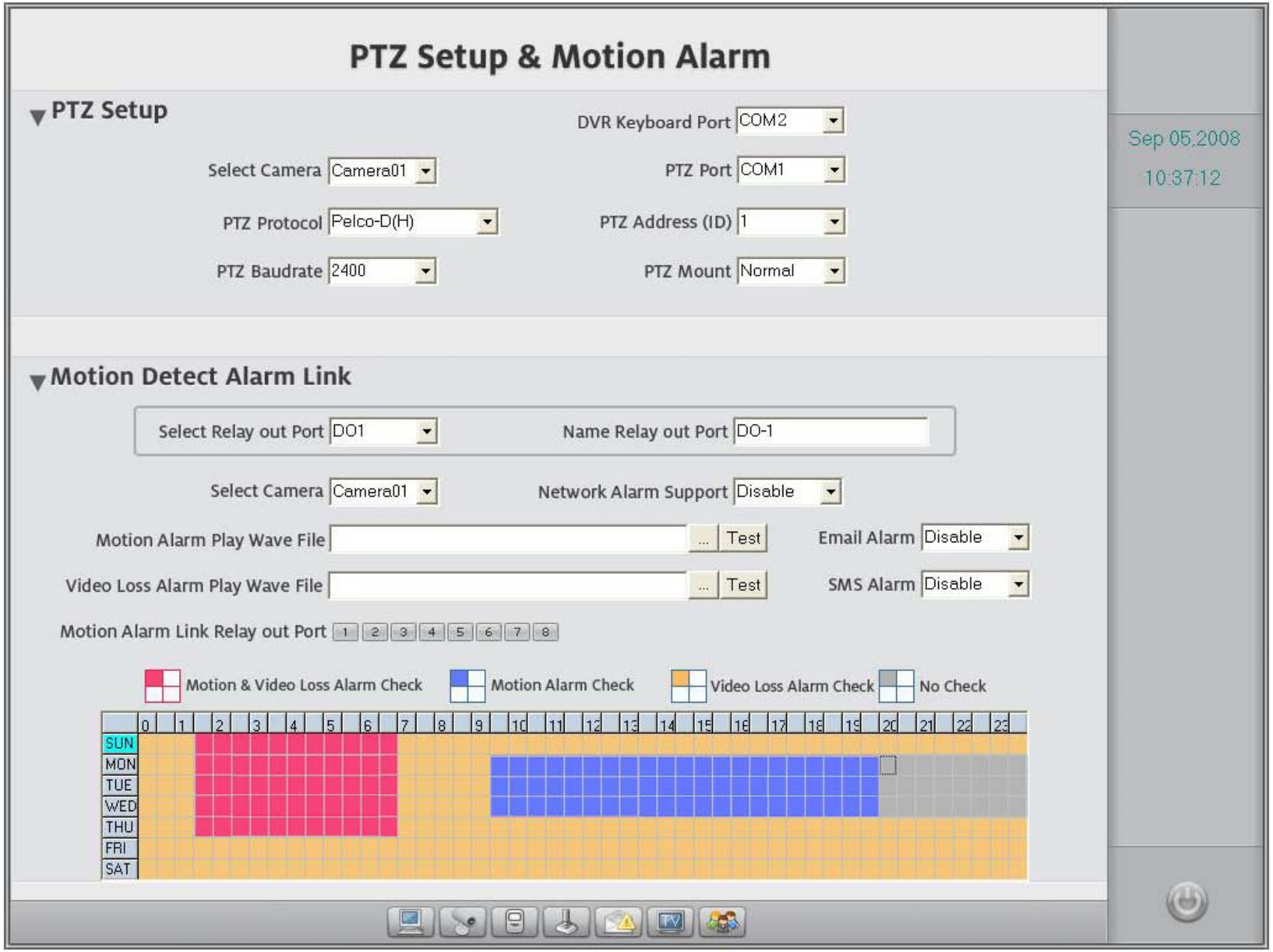
a. **Alarm Check Time -** **:** The HVR System responds to the group of sensors at this time (00:30 to 12:00 from Sun. to Fri.).

b. **No Check Time -** **:** The HVR System stops responding to the group of sensors at this time (12:00 to 0:30 from Sun. to Fri. and whole day of Saturday).

### 1.4.4. PTZ Setup and Motion Alarm

**PTZ Setup**

- **DVR Keyboard Port:** Set the DVR keyboard 2988 connecting COM port.
- **PTZ Port:** Set the PTZ connecting COM port. All of the PTZ's in one HVR system share one COM port.
- **Select Camera:** Select a camera to configure the following 4 items.
- **PTZ Protocol:** Set PTZ control protocol. The protocol name with H means high speed dome protocol.
- **PTZ Address (ID number):** Set PTZ address, the address ID can be different from the camera sequential number.
- **PTZ Baudrate:** Set the correct protocol baud rate.
- **PTZ Mount:** Set PTZ installation method.


PTZ Setup & Motion Alarm
PTZ Setup
DVR Keyboard Port COM2
Select Camera Camera01
PTZ Port COM1
PTZ Protocol Pelco-D(H)
PTZ Address (ID) 1
PTZ Baudrate 2400
PTZ Mount Normal
Sep 05,2008
10:37:12
Motion Detect Alarm Link
Select Relay out Port DO1
Name Relay out Port DO-1
Select Camera Camera01
Network Alarm Support Disable
Motion Alarm Play Wave File
Test
Email Alarm Disable
Video Loss Alarm Play Wave File
Test
SMS Alarm Disable
Motion Alarm Link Relay out Port 1 2 3 4 5 6 7 8
Motion & Video Loss Alarm Check
Motion Alarm Check
Video Loss Alarm Check
No Check
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
SUN
MON
TUE
WED
THU
FRI
SAT

**Motion Detect Alarm Link**

- **Select Relay out Port:** Select a description for the alarm out port number.
- **Name Relay out Port:** The name you type in here will show up on the **Alarm Control Panel** in Live Center. The relay out port can be used to open a door, or maybe to turn on a light.
- **Select Camera:** Select a camera to set up the following 7 items (a – g). Motion detect alarm must be configured one by one for the cameras.
- **Network Aalrm Support:** Enable or disable the network alarm.

**Important: To apply the function of "Motion Record" and "Network Alarm Support" in Live Center and CMS, you must enable Network Alarm Support.**

- **Motion Alarm Play Wave File:** Set audio file path to play sound warning when motion alarm is set off.
- **Video Loss Aalrm Play Wave File:** Set audio file path to play sound warning when video is lost.
- **Motion Alarm Link Relay out Port:** Select which relay out ports respond to this camera. One camera can trigger multiple ports.
- **Email Alarm:** Enable or disable email alarm support.
- **SMS Alarm:** Enable or disable SMS alarm support.

**Schedule Setup** (Example for above figure)

- **Motion and Video Loss Alarm Check -** : The HVR System responds to either **Motion Detect** or **Video Lost** in this time frame (01:30 to 07:00, Sun. to Thur.).
- **Motion Alarm Check -** : The HVR System only responds to **Motion Detect** in this time frame (09:30 to 20:00, Monday - Wednesday).
- **Video Loss Alarm Check -** : The HVR System only responds to **Video Loss Alarm** in this time (yellow area).
- **No Check -** : The HVR System stops responding to **Motion Detect** and **Video Loss Alarm** in this time (20:00 to 24:00, Monday - Wednesday).

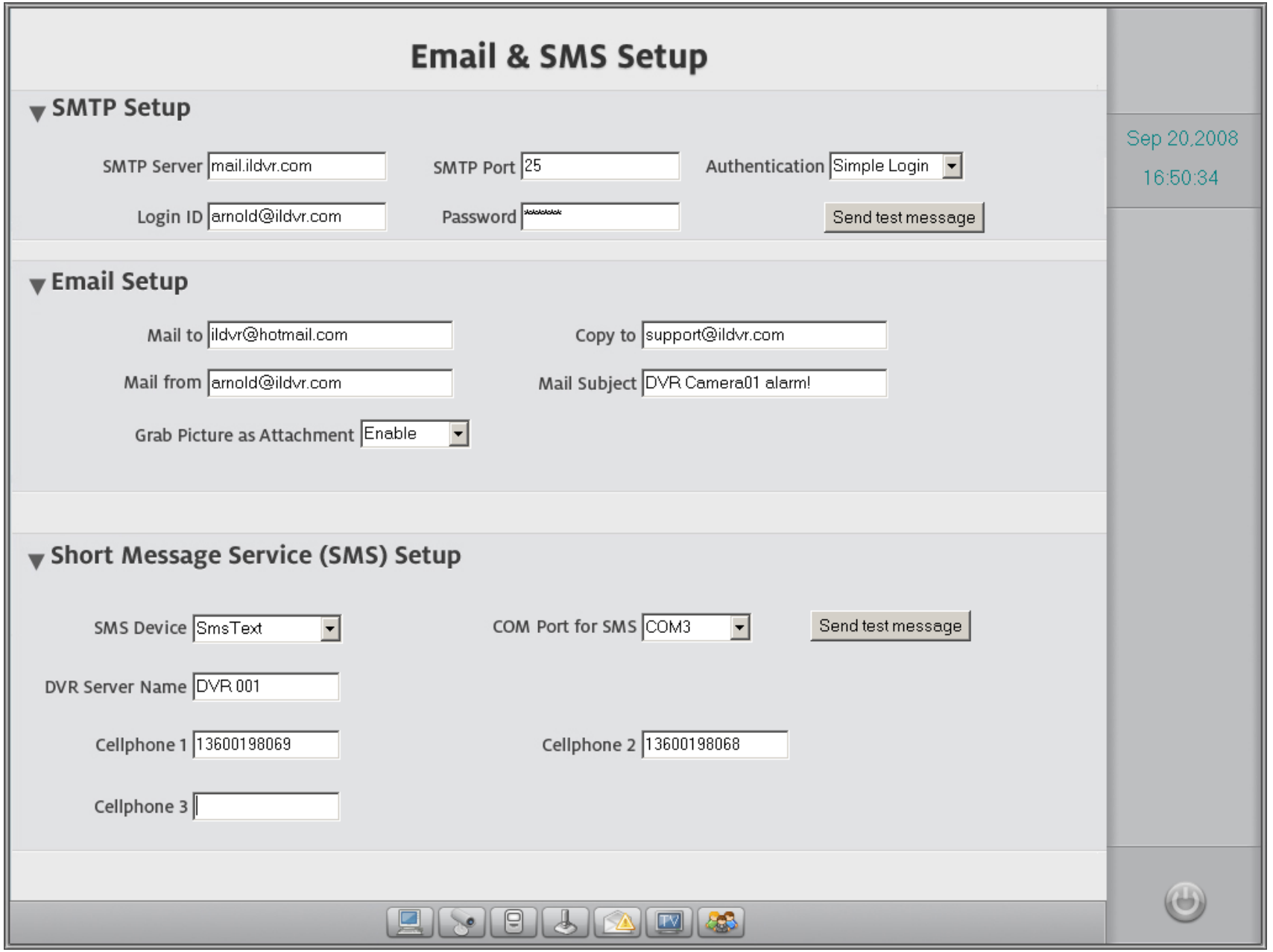
**Note: The 'No Check' setting will not impede the 'Motion Record' setting you have set up in the Camera Setup page in Section 1.4.2.**

### 1.4.5. Email and SMS Setup

**SMTP Setup**

Enter mail server name or IP address, login ID, password and all other information.

- **SMTP Server:** Enter your mail server address.


Email & SMS Setup
SMTP Setup
SMTP Server
mail.ildvr.com
SMTP Port
25
Authentication
Simple Login
Login ID
arnold@ildvr.com
Password
Send test message
Sep 20,2008
16:50:34
Email Setup
Mail to
ildvr@hotmail.com
Copy to
support@ildvr.com
Mail from
arnold@ildvr.com
Mail Subject
DVR Camera01 alarm!
Grab Picture as Attachment
Enable
Short Message Service (SMS) Setup
SMS Device
SmsText
COM Port for SMS
COM3
Send test message
DVR Server Name
DVR 001
Cellphone 1
13600198069
Cellphone 2
13600198068
Cellphone 3

- **SMTP Port:** Enter the mail server SMTP port (sending mail TCP port).
- **Authentication:** Enter the mail server authentication method.
- **Login ID:** Input Login ID
- **Password:** Login Password.

**Email Setup**

- **Mail to:** Enter the recipient mailbox address here.
- **Copy to:** Enter the second recipient mailbox address here.
- **Mail from:** Enter the sender's mailbox address here. This address must match the above mail server.
- **Mail Sunject:** Enter the Email subject here.
- **Grab Picture as attachment:** Enable or disable attaching a picture of the alarm camera.

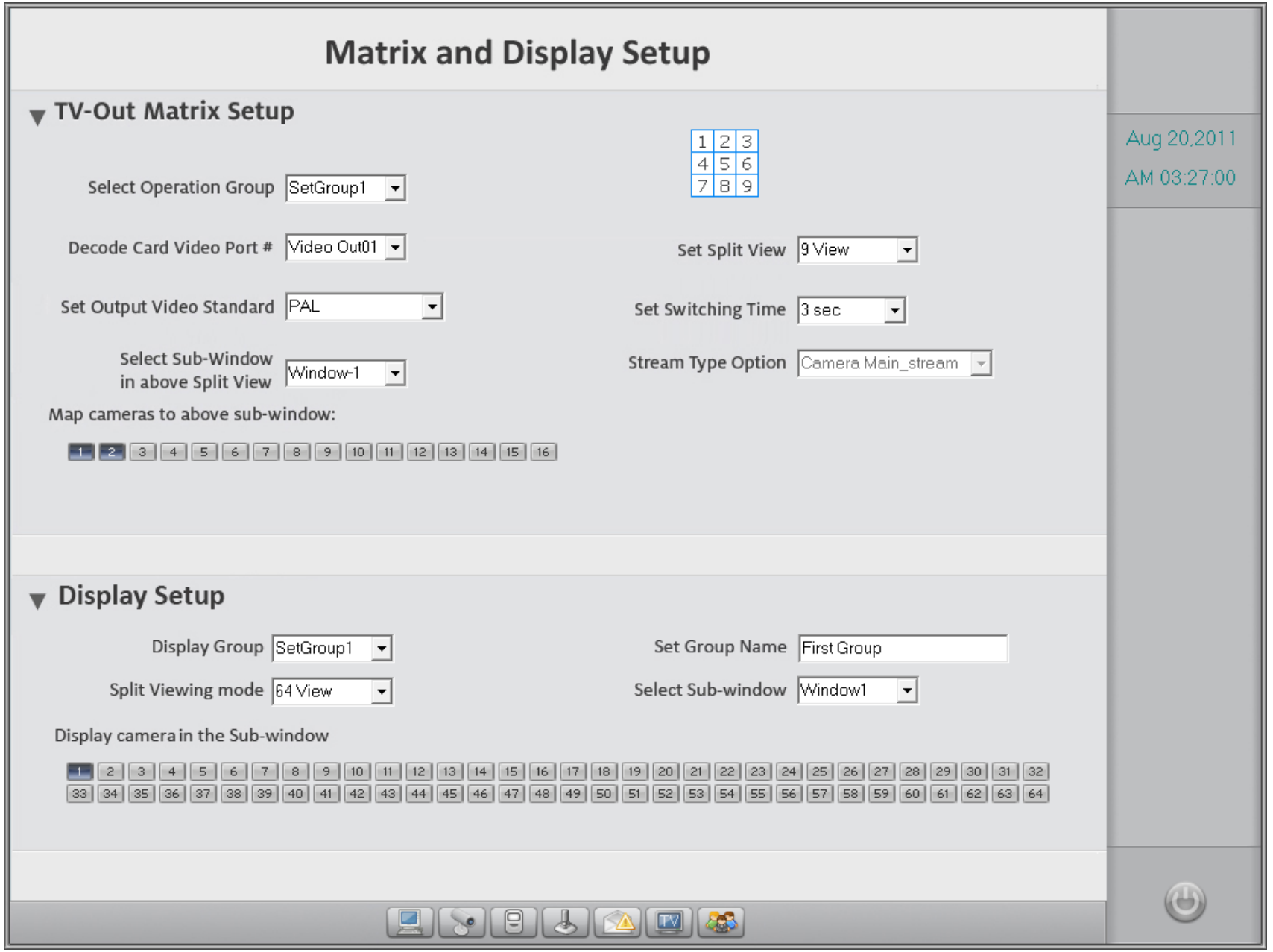
**Short Message Service (SMS) Setup**

- **SMS Device:** Select the SMS device type you would like to use. We suggest you use SMS Text.
- **COM Port for SMS:** Set the SMS device connecting COM port you would like to use. Please check it from **Windows Device Manager** after you install the GSM modem driver correctly.
- **DVR Server Name:** Enter a description of your DVR system.
- **Cellphone (1,2,3):** Input the recipient's cell phone number(s).

### 1.4.6. Matrix and Display Setup

**TV-out Matrix Setup**

This feature needs 3000HT(E) or 3000H4D series cards to support. 3000HT(E) cards support video from the DVR card itself. 3000H4D decode card support video from following products: 3000H4C/C+/F/G series cards, IL6000HCS/HDS/HN series NetDVR, IL5000 series IP server, INC-TS/TE series IP Camera and INS-SC series IP Speed dome. If HVR Server has or mixes other model of product, please choose PC Decode IP Matrix solution. See section 1.4.8 and section 1.4.9. The following description takes the 3000H4D decode cards as example. The 3000HT(E) card operation is similar but without stream type options. Please make sure that you know how many TV-out ports are available on your HVR system. Typical decoder cards have 2 or 4 ports. The HVR Server supports up to 24 ports (max. 24 monitors).


Matrix and Display Setup
TV-Out Matrix Setup
1 2 3
4 5 6
7 8 9
Aug 20,2011
AM 03:27:00
Select Operation Group
SetGroup1
Decode Card Video Port #
Video Out01
Set Output Video Standard
PAL
Select Sub-Window in above Split View
Window-1
Set Split View
9 View
Set Switching Time
3 sec
Stream Type Option
Camera Main_stream
Map cameras to above sub-window:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Display Setup
Display Group
SetGroup1
Set Group Name
First Group
Split Viewing mode
64 View
Select Sub-window
Window1
Display camera in the Sub-window
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

- **Select Operation Group:** The HVR system manages the matrix settings by groups. All of the following operation steps are saved in this group until you change to operate another group. From the main interface, you can easily switch TV-out groups by clicking the switch button and selecting the target group name.
- **Decode Card Video Port:** Choose a TV-out port number to set your display parameters. Your TV-out display port settings must be configured one by one for all ports. All of the following 6 steps are saved in this port (video out 01) until you change to operate a different port. Please finish all 6 steps before you change to configure another port. Repeat steps 1 through 6 until all Video-out ports completed.
  - **Step 1: Set Output Video Standard:** Select an out-going video format to match the monitor video standard (NTSC or PAL).
  - **Step 2: Set Split View:** Select a split viewing mode for this port (TV-out port 01).
  - **Step 3: Set Switching Time:** Set a time (in seconds) to switch camera views. If you assign multiple cameras (step 6) to one window or sub-window, the HVR system will automatically show these cameras in sequence at the interval you configured above.
  - **Step 4: Select Sub-window in above Split View:** Choose one sub-window in the above split view (step 2) to assign cameras to. The sub-window must be assigned one at a time. The next two steps are saved in "sub-window1" until you change to operate another sub-window. Before changing another TV-out port, please repeat step 4, 5 and 6 until all sub-windows are completed.
  - **Step 5: Stream Type Option:** Select the stream type for the cameras in next operation.
  - **Step 6: Assign Cameras to above sub-window:** Click the camera number to add it to sub-window1.

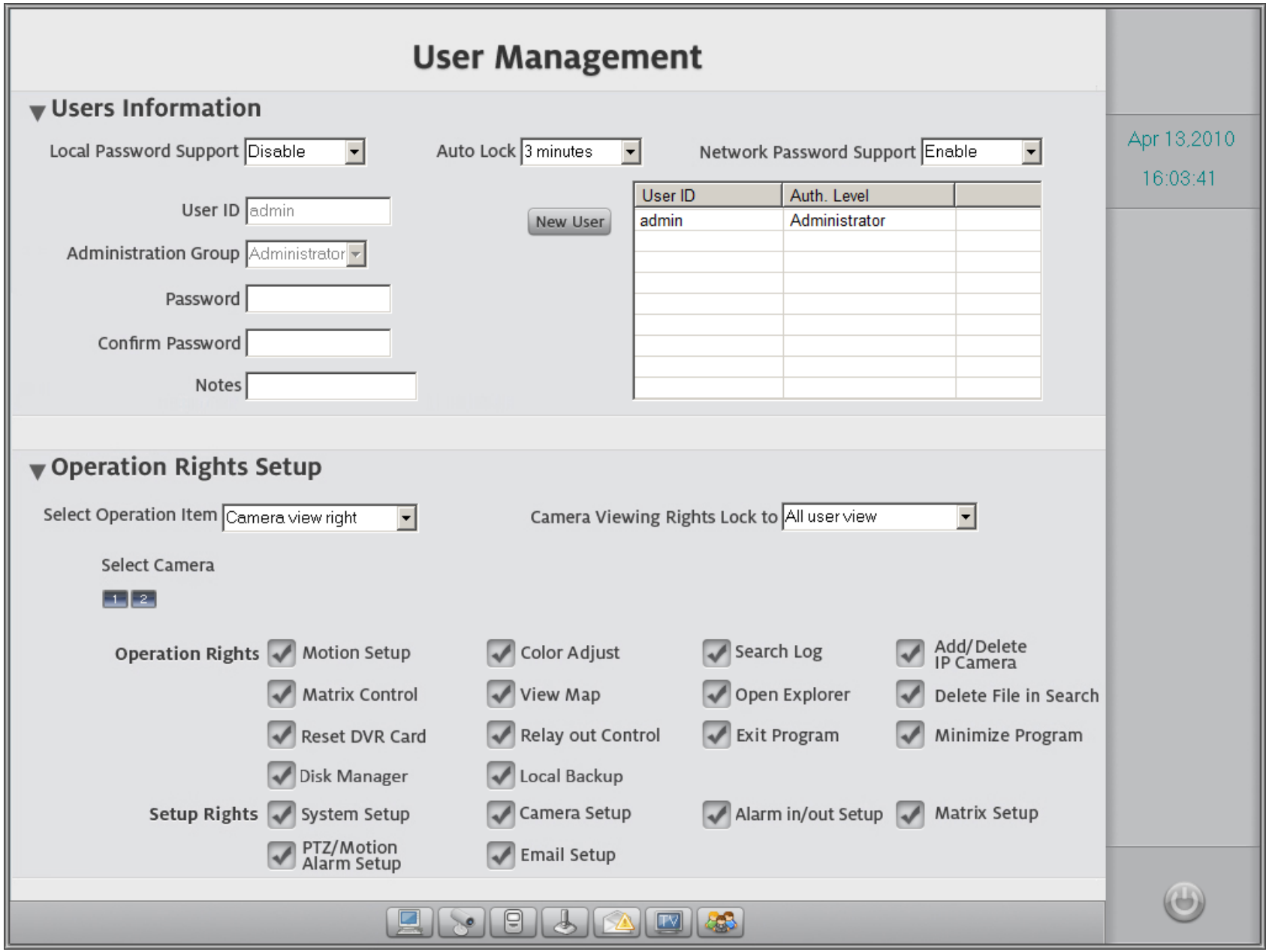
**Important Tips**

- **Due to the dual-stream function of the DVR card, you will have twice the number cameras for your TV-out. That means that every camera can be assigned twice. One is for the camera's main-stream; the other is for the camera's sub-stream. If you assign one camera multiple times through the same stream type, the HVR System will only remember the final operation. This means that the earlier "add in" operations will no longer be valid.**
- **If your HVR connects to an IP device, please check the resolution (D1 or CIF) of the network video and the settings for "Decode Card Working Mode" in the IP Device List interface. If this optional setting is disabled, even if you add in IP cameras to the TV-out, they will not show up on the screen. Set the decode mode to match the video resolution. D1 mode can support the exact amount of IP cameras equivalent to your TV-out ports. CIF mode supports twice as many.**

**Display Setup**

The operation is similar to above TV-out Matrix Setup. You should configure every group and sub-window one by one.

### 1.4.7. User Management

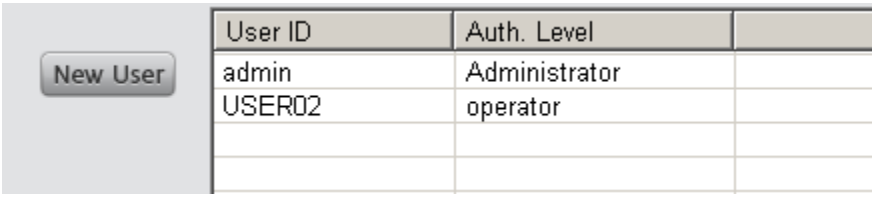

User Management
Users Information
Local Password Support
Disable
Auto Lock
3 minutes
Network Password Support
Enable
User ID
admin
Administration Group
Administrator
Password
Confirm Password
Notes
New User
User ID
Auth. Level
admin
Administrator
Apr 13,2010
16:03:41
Operation Rights Setup
Select Operation Item
Camera view right
Camera Viewing Rights Lock to
All user view
Select Camera
1
2
Operation Rights
Motion Setup
Color Adjust
Search Log
Add/Delete IP Camera
Matrix Control
View Map
Open Explorer
Delete File in Search
Reset DVR Card
Relay out Control
Exit Program
Minimize Program
Disk Manager
Local Backup
Setup Rights
System Setup
Camera Setup
Alarm in/out Setup
Matrix Setup
PTZ/Motion Alarm Setup
Email Setup

**User Information**

- **Local Password Support:** Enable or disable the Local User Management function. Selecting "**Enable**" will activate the lock button on the main interface.

  When HVR system is locked, the network users can still log in and operate the system remotely. This is just to lock the HVR system locally.

- **Auto Lock:** Select the auto lock idle time in minutes. The HVR software can be set up to lock automatically if left idle for a specific amount of time.
- **Network Password Support:** Enable or disable the **Network User Management** function.
- **User ID:** This shows the current user ID. You may input a new User ID in this box as well.
- **Administration Group:** Select the user type for a new user ID. Only the Administration Group members have the rights to enter the User Management interface.
- **Password:** Here you can create or change a user's password.
- **Confirm Password:** Re-type the password you entered in the above field.
- **Notes:** Enter your user description in this field.




The User List shows all users and their user information. To delete a user ID, please select the user and click the "**delete**" button. Deleting a user ID will disable them from logging in locally and remotely.

To add a new user into the system, firstly click this button to empty the "**User ID**" box and activate the "**Add User**" button.

Click this button to add a new user. You can set a maximum number of 16 users per system.

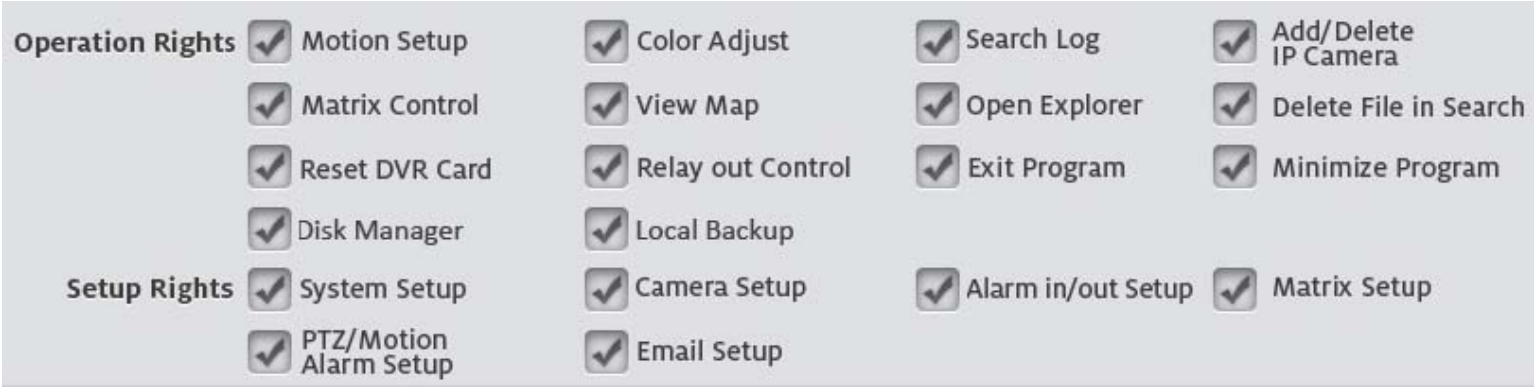
Save all changes with this button. Click this button to save all settings when you finish the "**Operation Rights Setup**" for the current user.

Click this button to delete current user.

**Operation Rights Setup**

- **Select Operation Item:** Camera operation rights are divided to four types: camera view rights, camera playback rights, camera audio rights, and PTZ control rights. Each type of rights must be configured individually with the next operation step.
- **Select Camera:** Click the camera number to authorize above "**camera operation rights**" for the current user.
- **Camera Viewing Rights Lock to:** This setting only takes effect when the HVR system locks. When you set this to the "**All users view**", the screen hides the cameras that the users are forbidden to view. When you select the "**Current user view**", the screen hides the cameras that the final operator is forbidden to view.

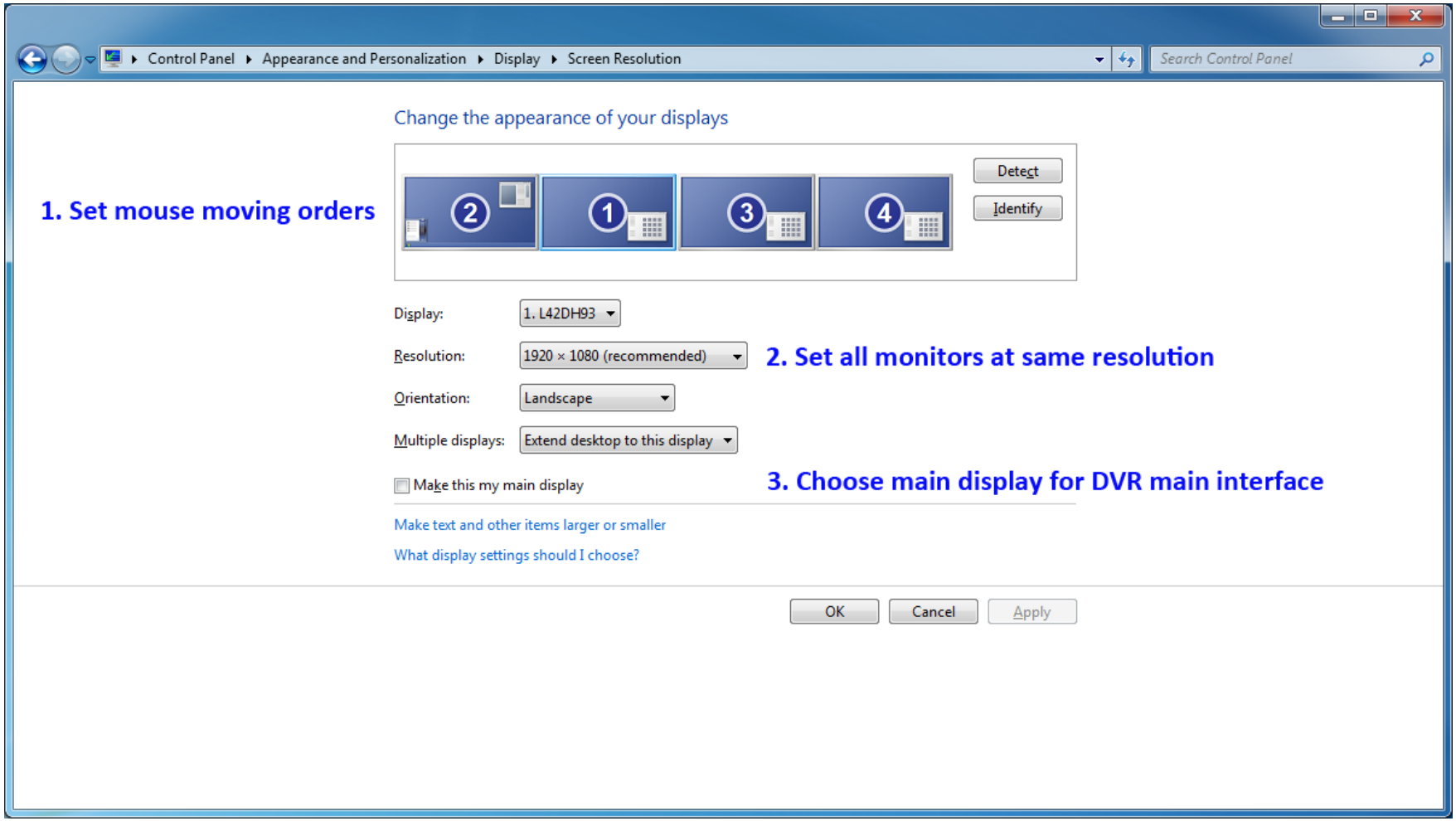
The following operation rights are the system operation rights. Click on the check icon to enable these rights for the current user.




This is the exit button. Once you're ready to exit the screen, press this button. A message box will appear asking you if you would like to save. Click "**Yes**" if you would like to save your changes; "**No**" to discard any changes you may have made.

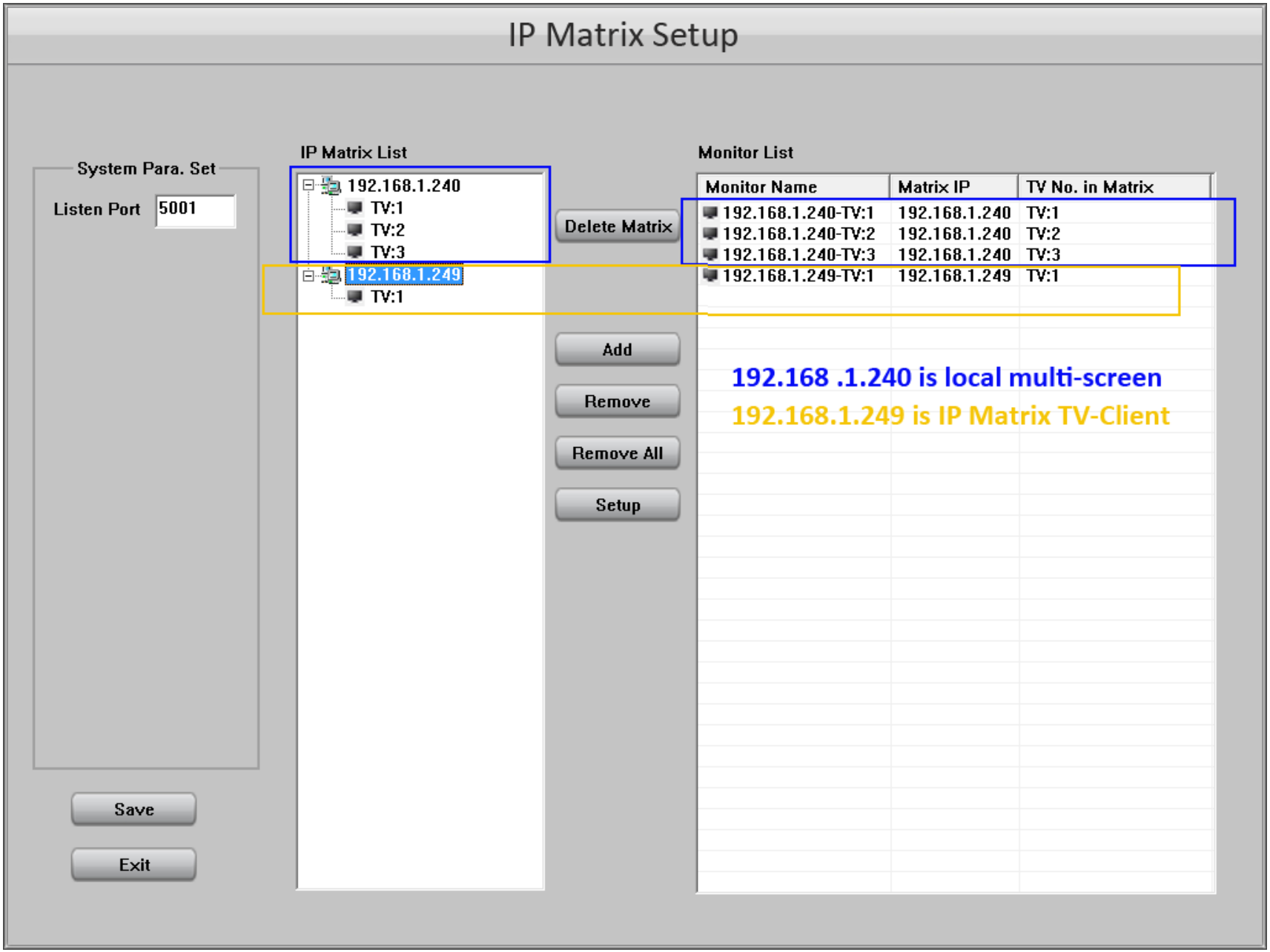
### 1.4.8. Multiple Display Outputs

HVR supports max. 4 monitor displaying video. If your HVR computer installed dual-head display card or installed dual display cards and mounted with multiple monitors. Please enter Windows OS display settings to personalize the display appearance. See following illustration.

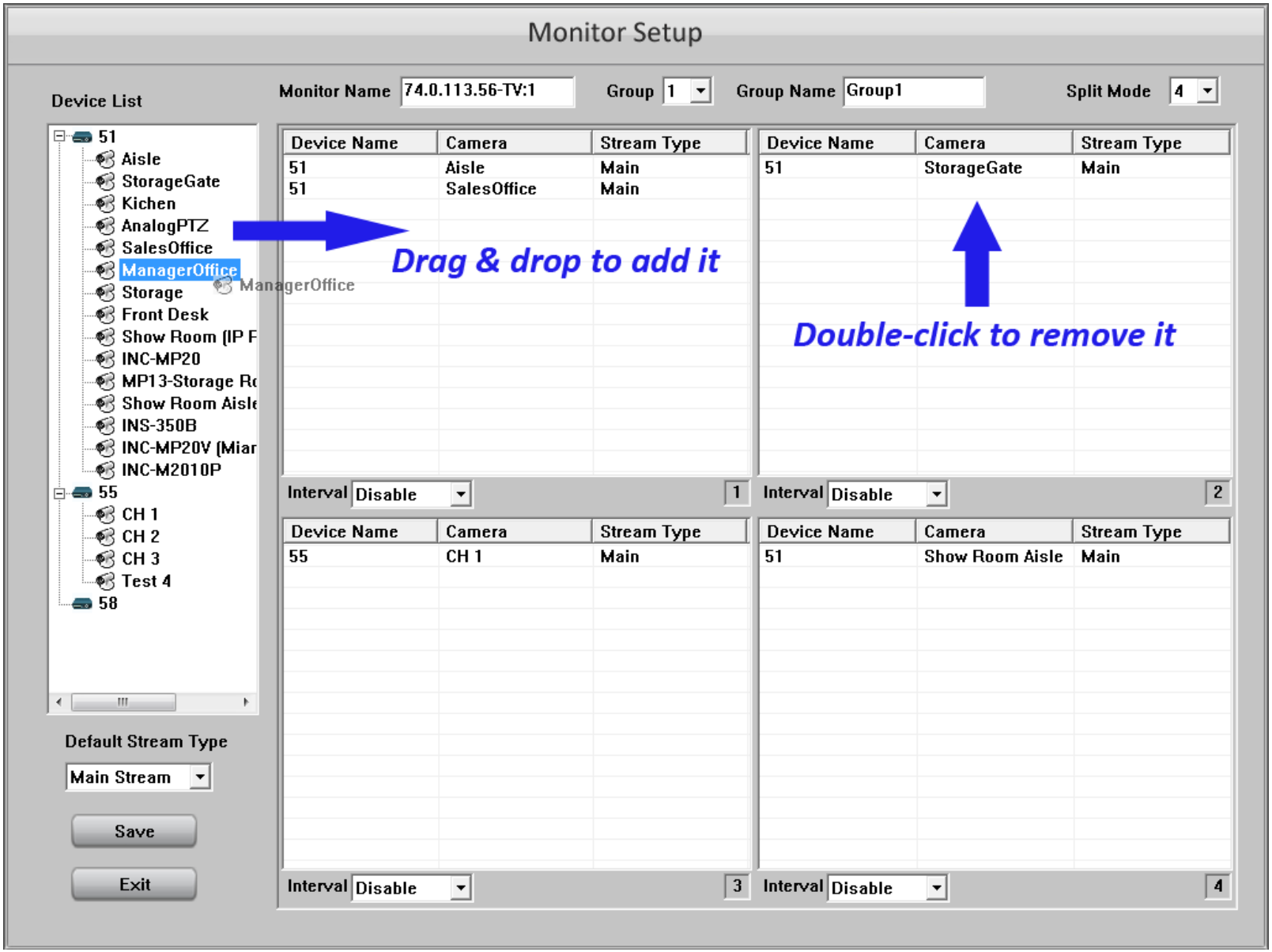

Control Panel ▸ Appearance and Personalization ▸ Display ▸ Screen Resolution
Search Control Panel
1. Set mouse moving orders
Change the appearance of your displays
Detect
Identify
Display: 1. L42DH93
Resolution: 1920 × 1080 (recommended)
2. Set all monitors at same resolution
Orientation: Landscape
Multiple displays: Extend desktop to this display
Make this my main display
3. Choose main display for DVR main interface
Make text and other items larger or smaller
What display settings should I choose?
OK
Cancel
Apply

After you finish multiple display configuration, HVR system will auto detect how many local monitors could be used, The screen right-click menu will add a new item "Multi-Screen Setup". Click it to enter following "IP Mxtrix Setup" interface. In the illustration, HVR server installed 4 monitors and one IP Mxtrix connect it.

**For your attention:** Only after you connect 2 or more monitors to HVR system, the "Multi-Screen Setup" will be available to use.


IP Matrix Setup
System Para. Set
Listen Port
5001
Save
Exit
IP Matrix List
192.168.1.240
TV:1
TV:2
TV:3
192.168.1.249
TV:1
Delete Matrix
Add
Remove
Remove All
Setup
Monitor List
Monitor Name
Matrix IP
TV No. in Matrix
192.168.1.240-TV:1
192.168.1.240
TV:1
192.168.1.240-TV:2
192.168.1.240
TV:2
192.168.1.240-TV:3
192.168.1.240
TV:3
192.168.1.249-TV:1
192.168.1.249
TV:1
192.168 .1.240 is local multi-screen
192.168.1.249 is IP Matrix TV-Client

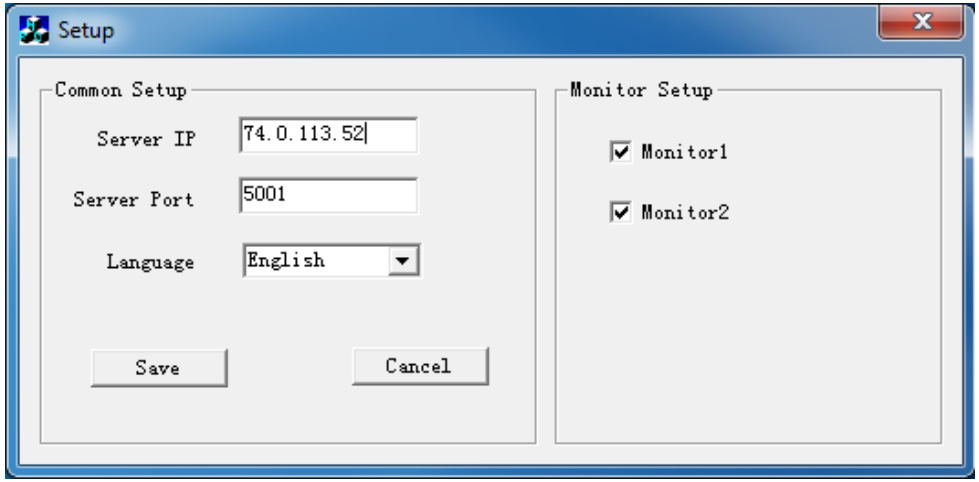
In the Monitor List table choose one monitor then press Setup button to enter following “Monitor Setup” interface. If you add multiple cameras in one sub-window, please don’t forget to set a switch time.

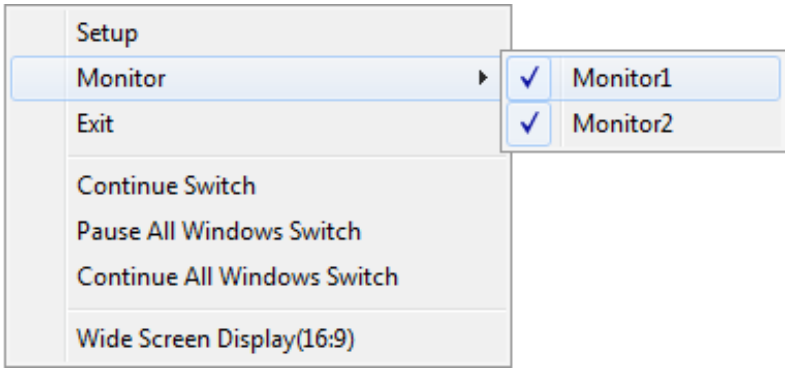


### 1.4.9. IP Matrix

IP Matrix is a kind of simple network client software, after you finish its installation, the following diagram pops up. Please input remote Server IP address (It could be HVR Server, Live Center or CMS software) and TCP port number then press “Save” button. When Windows OS startup, IP Matrix will automatically start up and keep on top of the screen. If you want to exit this program, right-click screen then choose Exit from right-click menu. You can also exit program from taskbar icon by right-click and select Exit. If you want to change the Server IP address please choose “Setup”. If you want to disable its auto-start feature, please delete the shortcut from startup menu. For the monitors configuration info please see above section.

**For your attention:** HVR Server must connect dual-monitor or more then it could support IP Matrix.

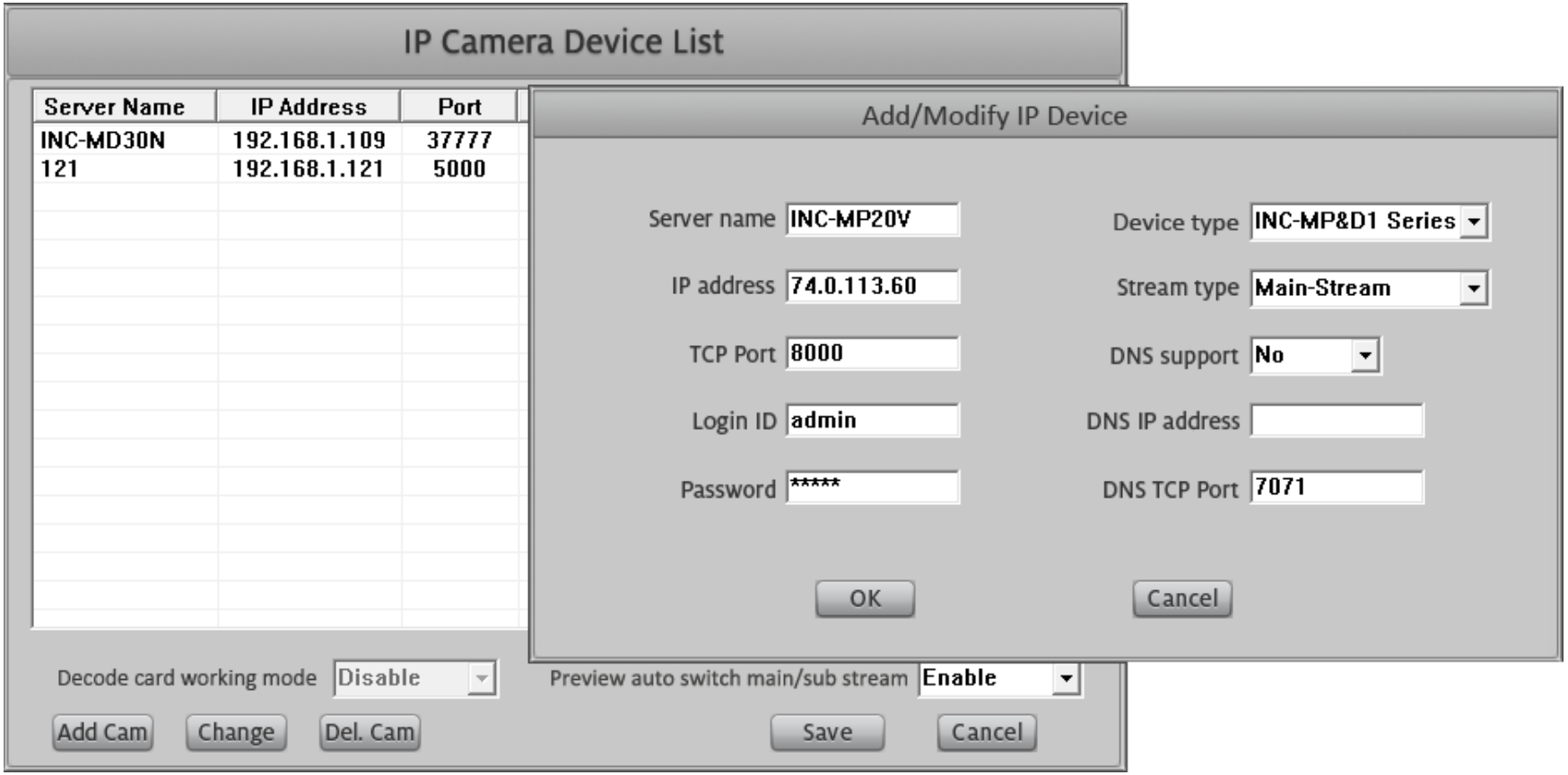



## 1.5. IP Device Operation

**Connecting IP Device**

In the tools panel of the main interface, click the button to enter **IP Camera Device List** interface (pictured below). The definition of ILDVR IP Device includes IP camera, IP video server, IP speed dome and IL6000/7100/8000 series of NetDVR (except IL6000HA&HE series). For non-ILDVR IP devices, the HVR server and Live Center need a USB device called U-dongle to support video recording. Please contact your dealer for more information.




Click the "**Add Cam**" button to add a new IP device. Click the "**Change**" button to modify an existing IP device. Click the "**Del. Cam**" button to delete an IP device.

All IP Device cameras are automatically arranged to the position behind the DVR card channel's and are given a channel number by the sequence of add-in operations.

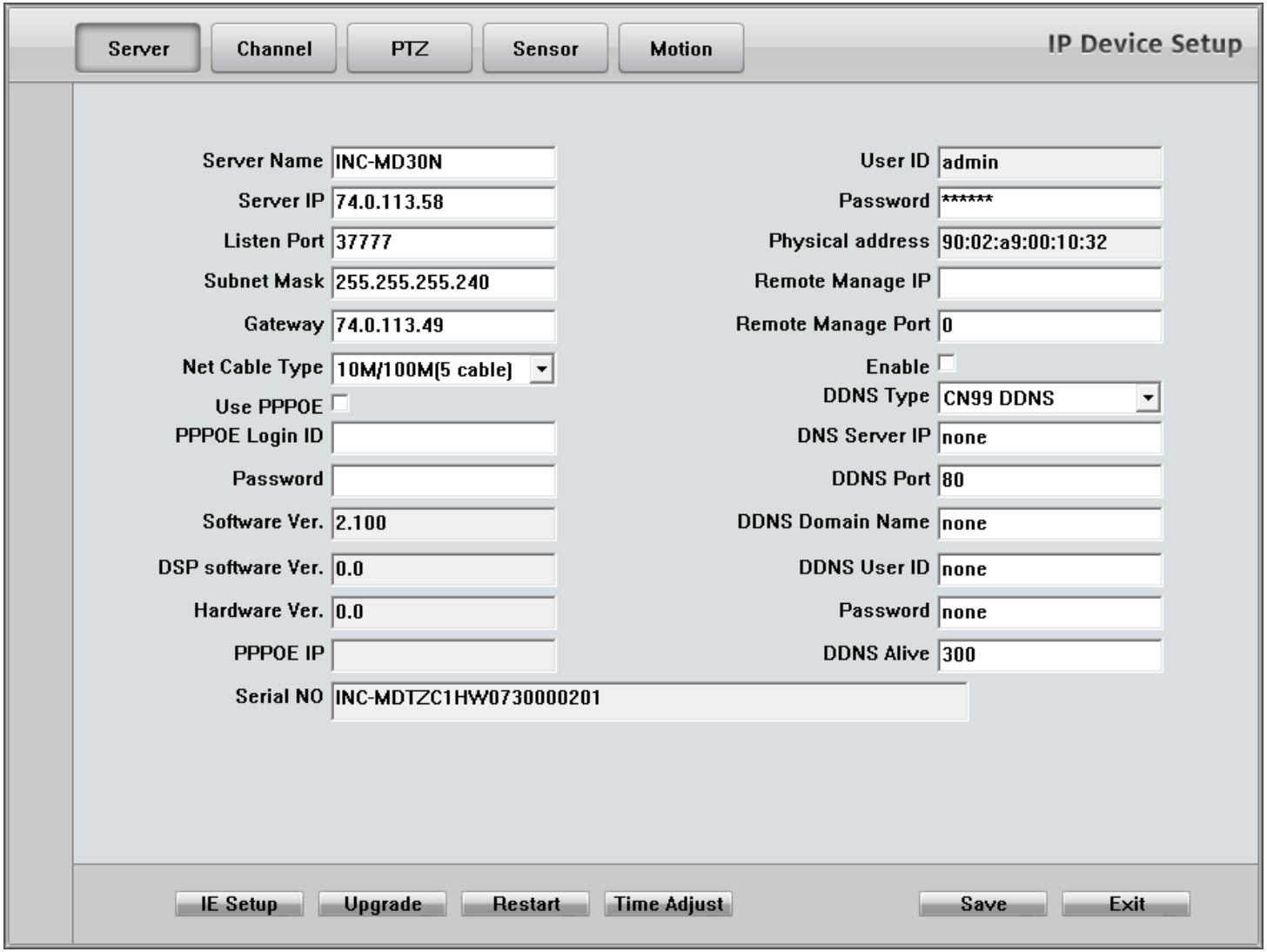
Please check the **Connect Status** and **Register** information from the IP device list. After connecting the IP device successfully, you can perform Remote Configuration for the IP device if necessary. See next section.

If your HVR system has decode card installed, please set the "**Decode card working mode**". First check the network video resolution (D1 or CIF), then set the **Decode Mode** to match the network video resolution. Refer to section 1.4.6.

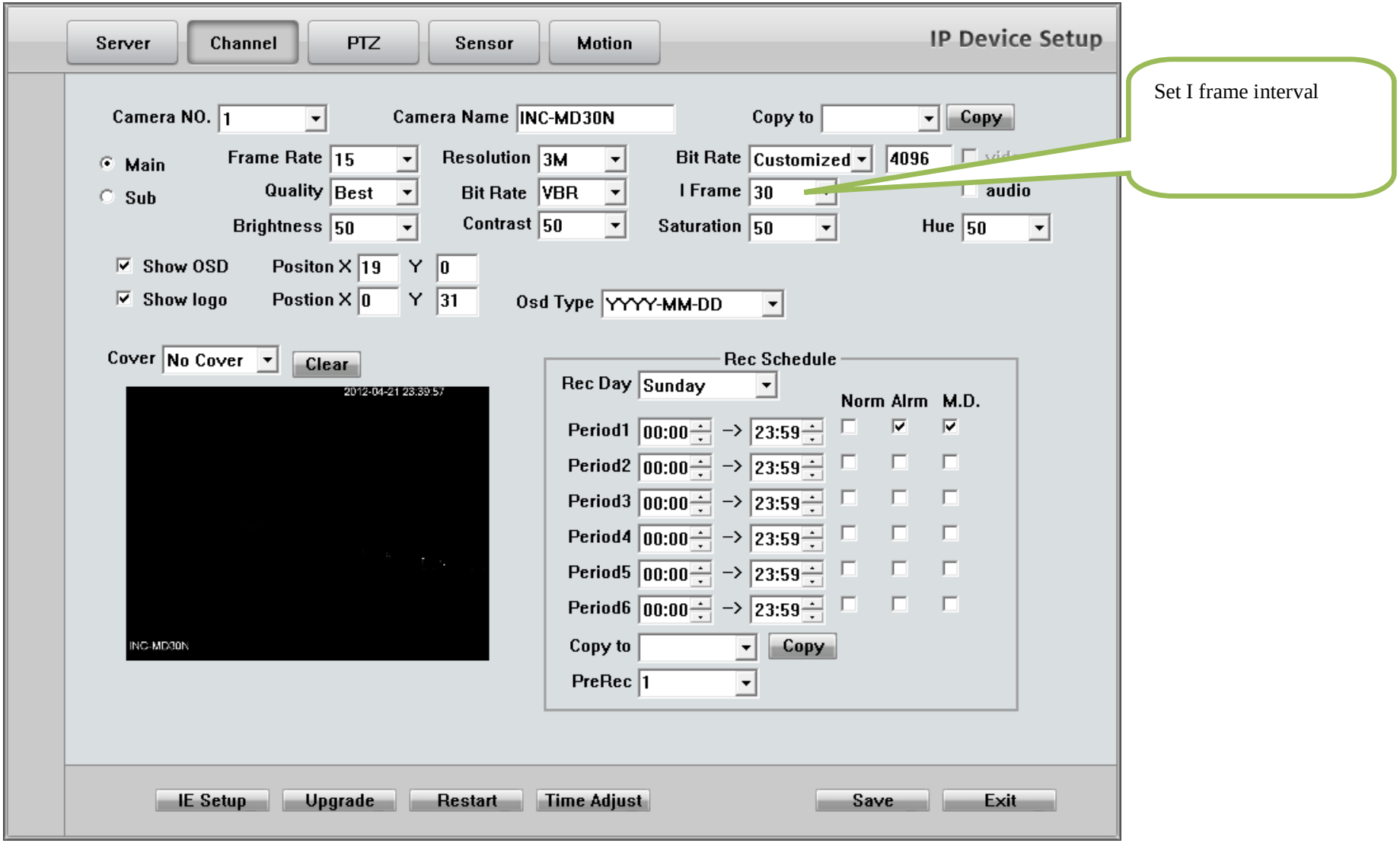
**IP Device Configuration**

Before you perform a remote configuration, please make sure that your login ID has authorized administration rights. Right click on any part of the screen and scroll down and select "**NetDVR_IPdevice Setup**" to enter the following IP Camera Setup interface. In default "**Server**" setup page, you can modify the device name, IP address, TCP port number and read the device serial number and system version information.

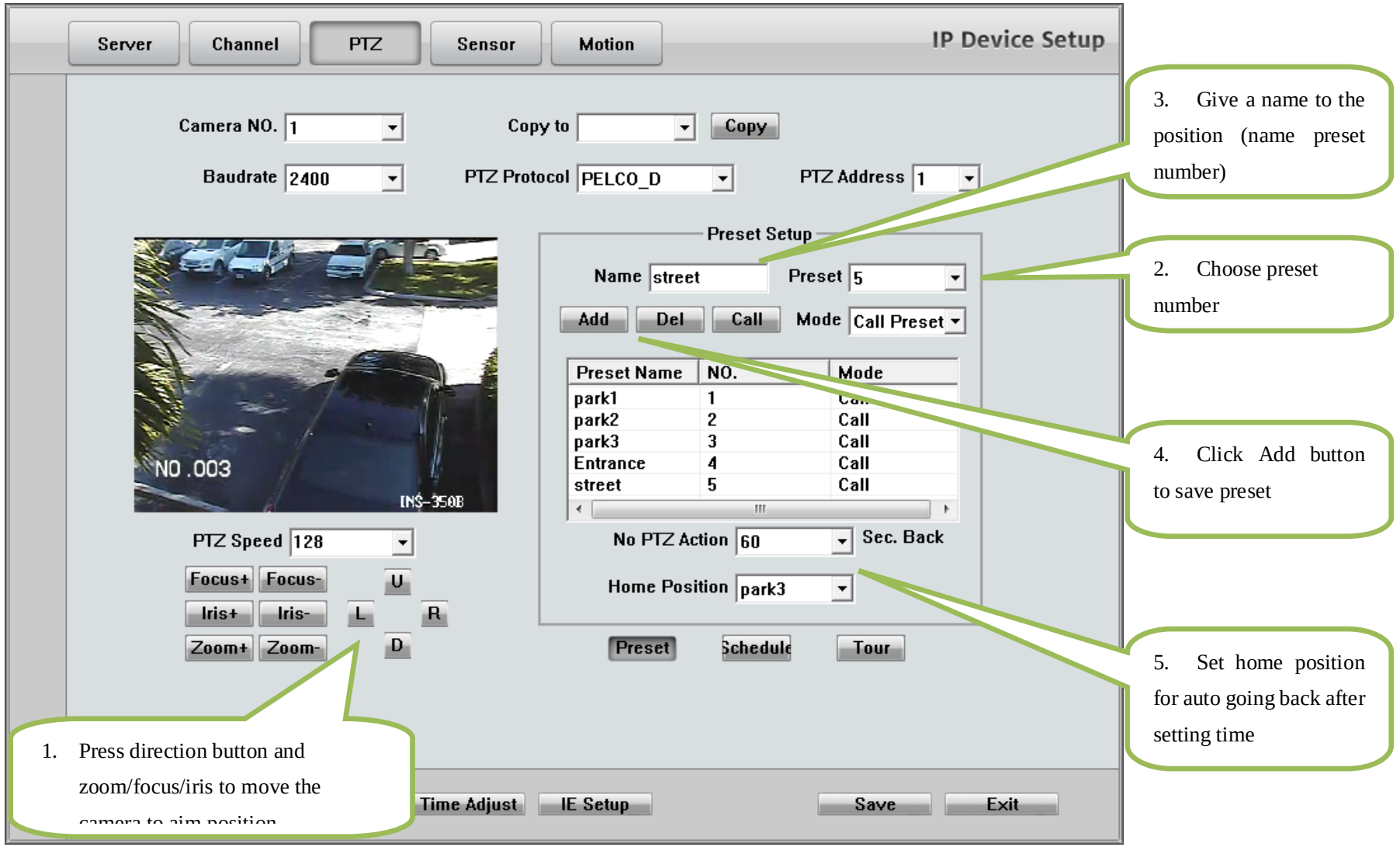
**For your attention:** Different IP device has different setup interface, here takes INC-MD series as example.



In the "**Channel**" setup page you can modify the camera name, video stream type, video quality, frame rate, bit rate, OSD parameters and setup privacy mask areas. The **Record Schedule** only takes effect locally at the IP device site. For example, if you setup the Record Schedule for the IP camera in this page, it will record to the SD Card.



In the "**PTZ**" setup page, please set the protocol, baud rate, and address to match your PTZ camera. After you setup the PTZ preset positions, you have 3 choices to enhance the PTZ usage. You might want to save a home position to make the PTZ go back to its original view, or set a schedule to call the PTZ to move to a preset position, or set PTZ to scan roads or highways.



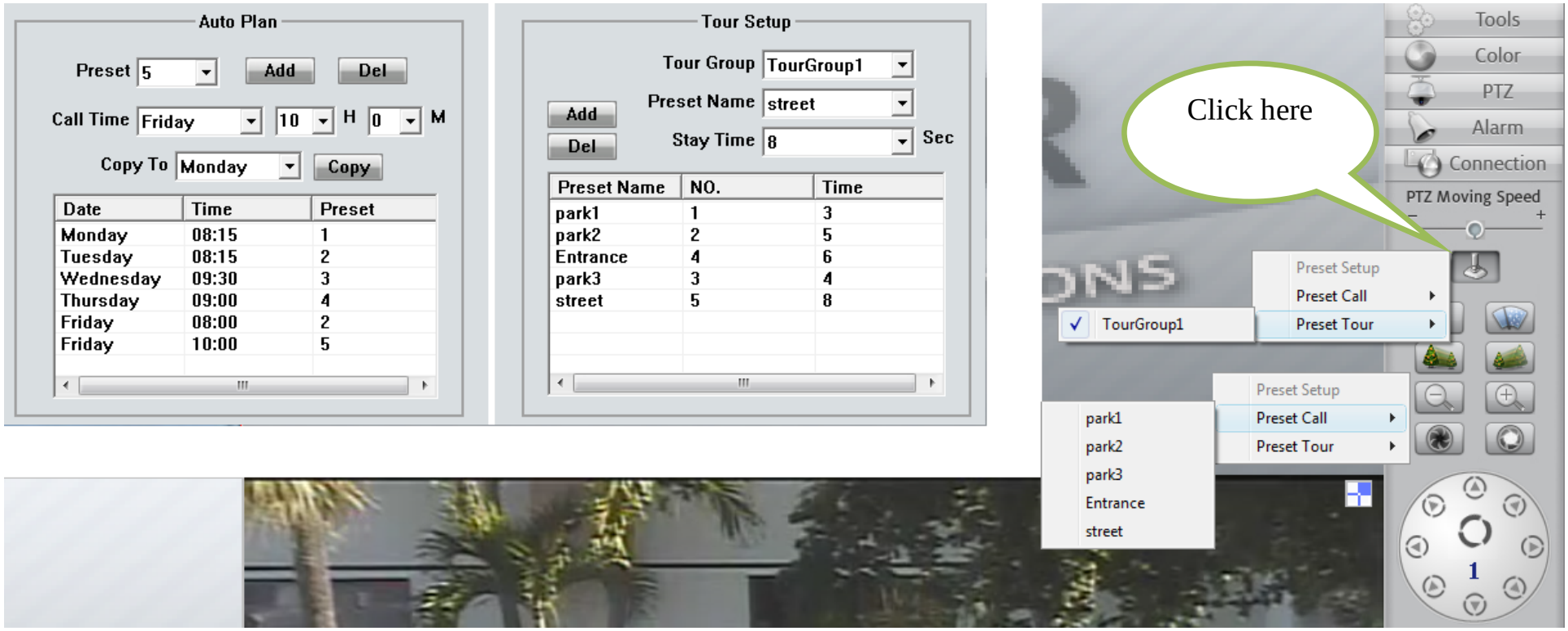
**Auto Plan:**

Auto Plan means HVR software automatically call the preset position by a scheduled time table. When the system time reach, the IP speed dome will auto move to preset position. You can save up to 64 moments and one preset could be used multiple times.

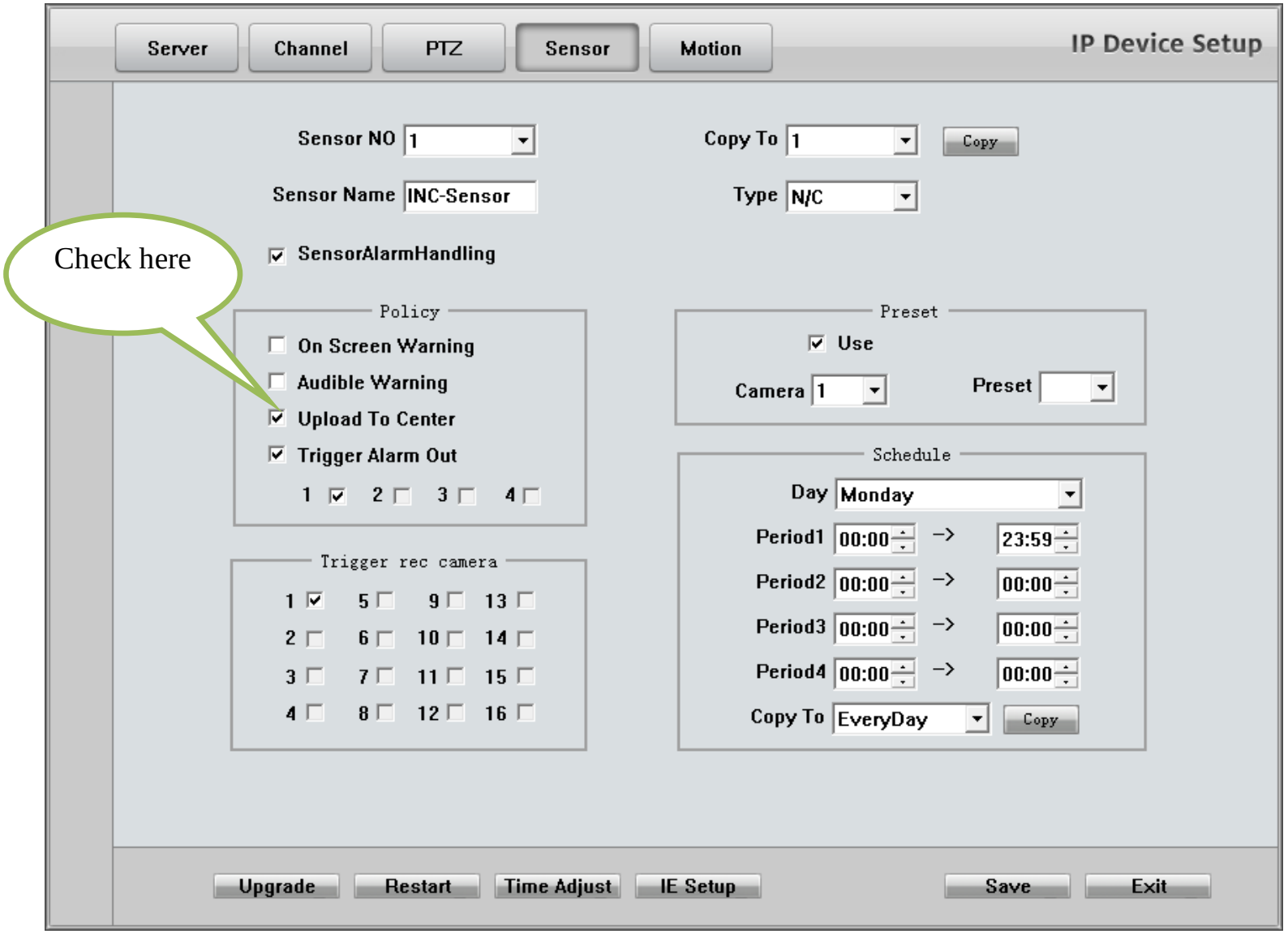
**Tour Group:**

Tour Group means you can put different preset position in a sequential group, each preset position could be defined a staying time (stay there without moving). When you execute a Tour, the IP camera will continuously move according to the sequence and time table saved in the group. You can save up to 8 groups.

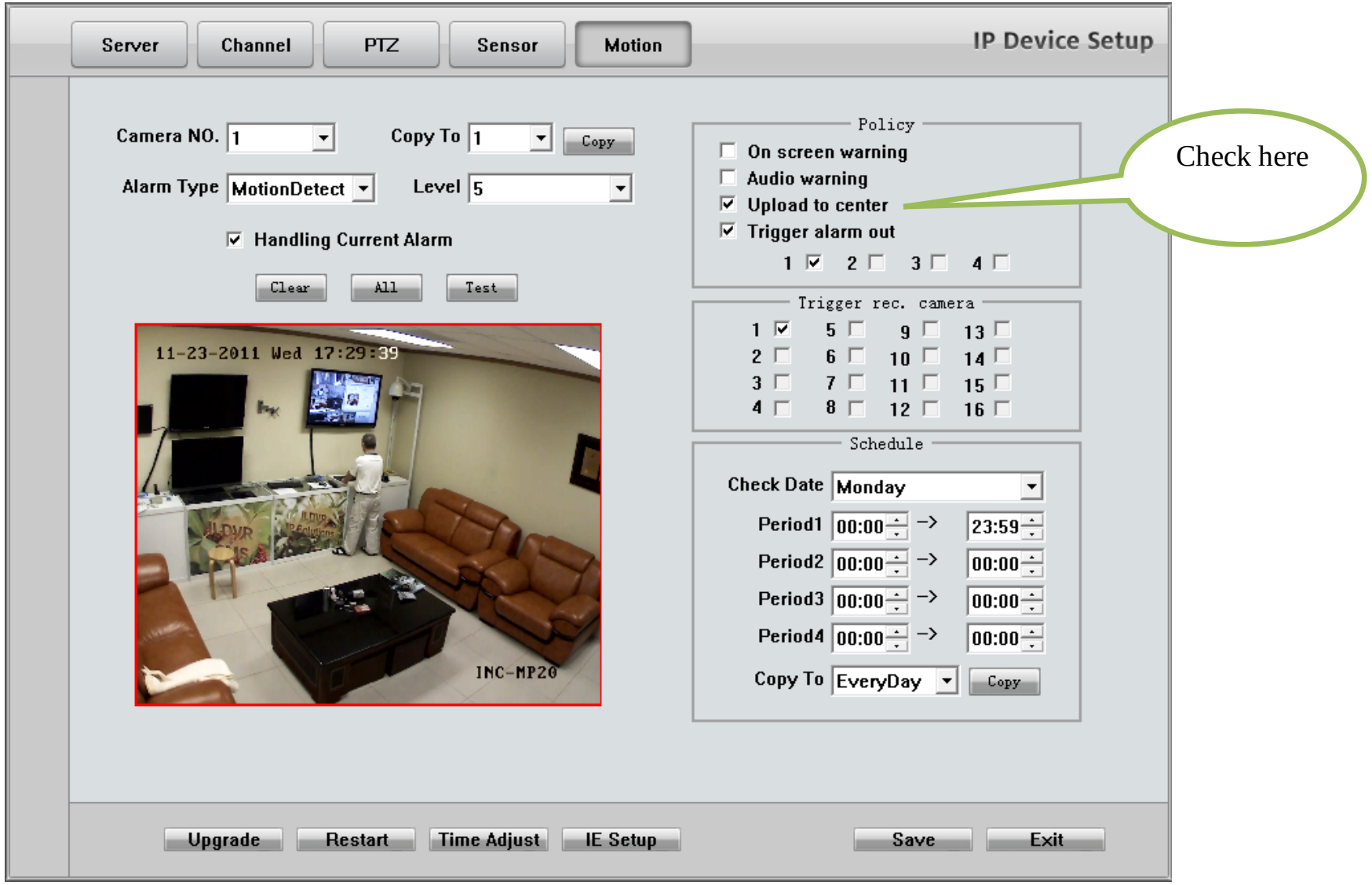
Not like analog PTZ which saves preset in camera system, the IP PTZ saves preset in local computer, so if you use another PC to control same IP PTZ, you should do same setting again in that PC. Comparing analog PTZ and IP PTZ, the setup procedure is very different, but the operations of call preset are exactly same. In main interface of HVR Server or Live Center, click “Preset Operation” button to bring up preset menu then choose call preset or tour preset.



In the "**Sensor**" setup page you can configure every external sensor settings such as armed guard schedule, trigger PTZ preset and trigger camera to record. If your IP device doesn't connect to a sensor or alarm-in equipment, the settings in this page will be negated.



In the “Motion” setup page you can setup the Motion Detect alarm type, sensitivity level, armed schedule, and trigger camera to record. The most important setting in this page is the “**Upload to center**” setting, which sends the motion detect alarm signal and video through the network. Even if you have video to view, if you don’t check this item, the motion record for the IP cameras will never take effect in the HVR system.

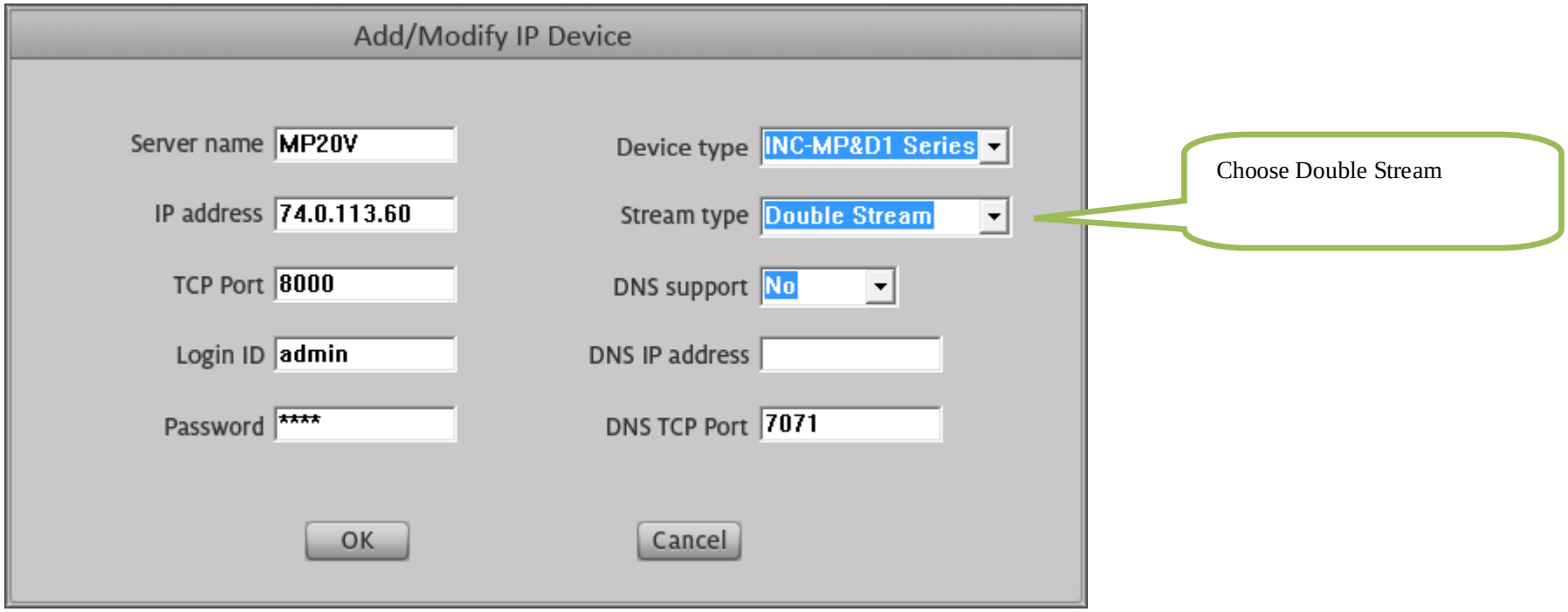


### 1.6. Advanced Operation for Megapixel IP Camera

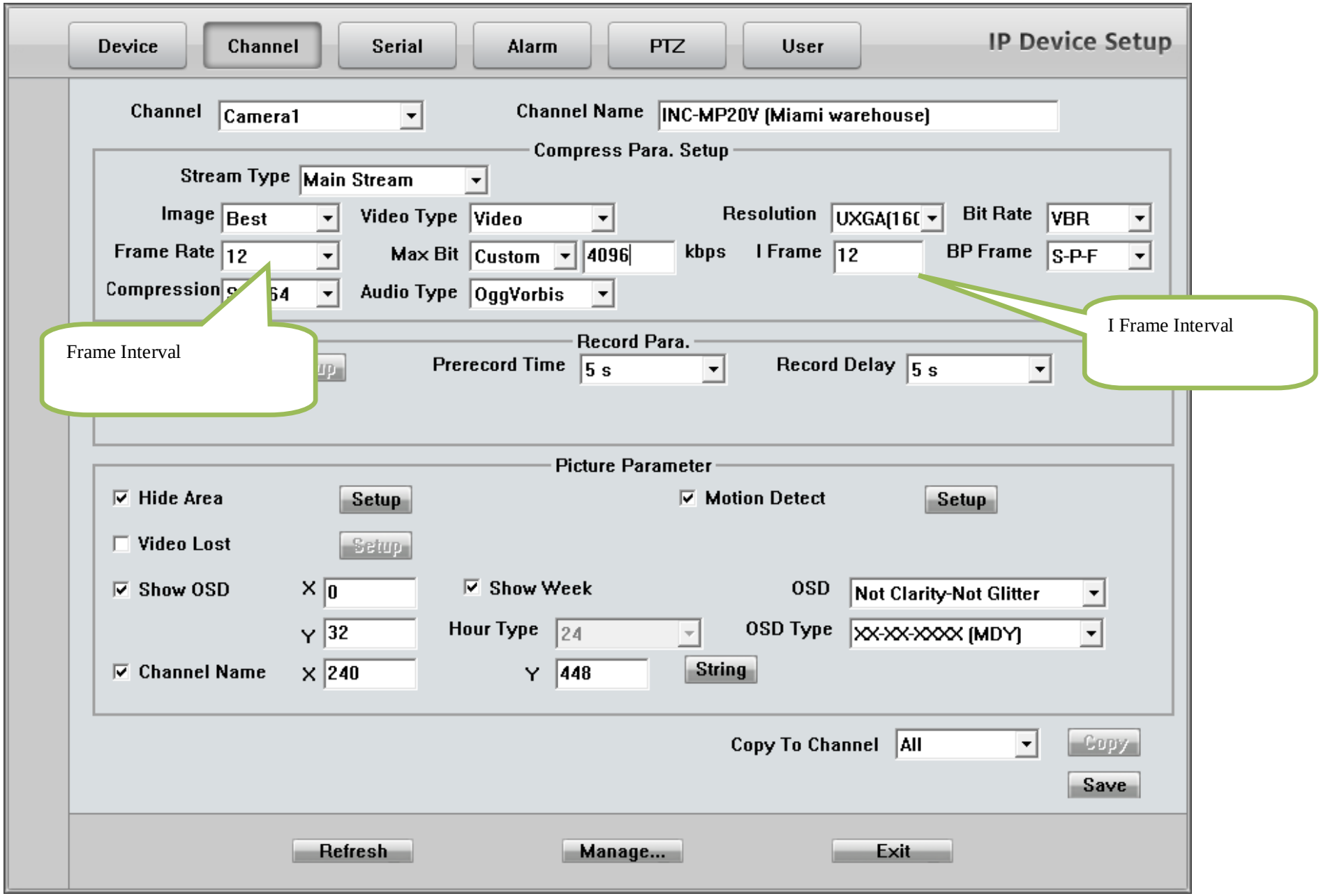
When you connect megapixel IP camera to HVR Server, in order to run it efficiently and stably, please pay attention to following 6 steps:

**Step 1:** Download and install latest version HVR Server software (current is v10.3.0.1 (2012-04-11)).

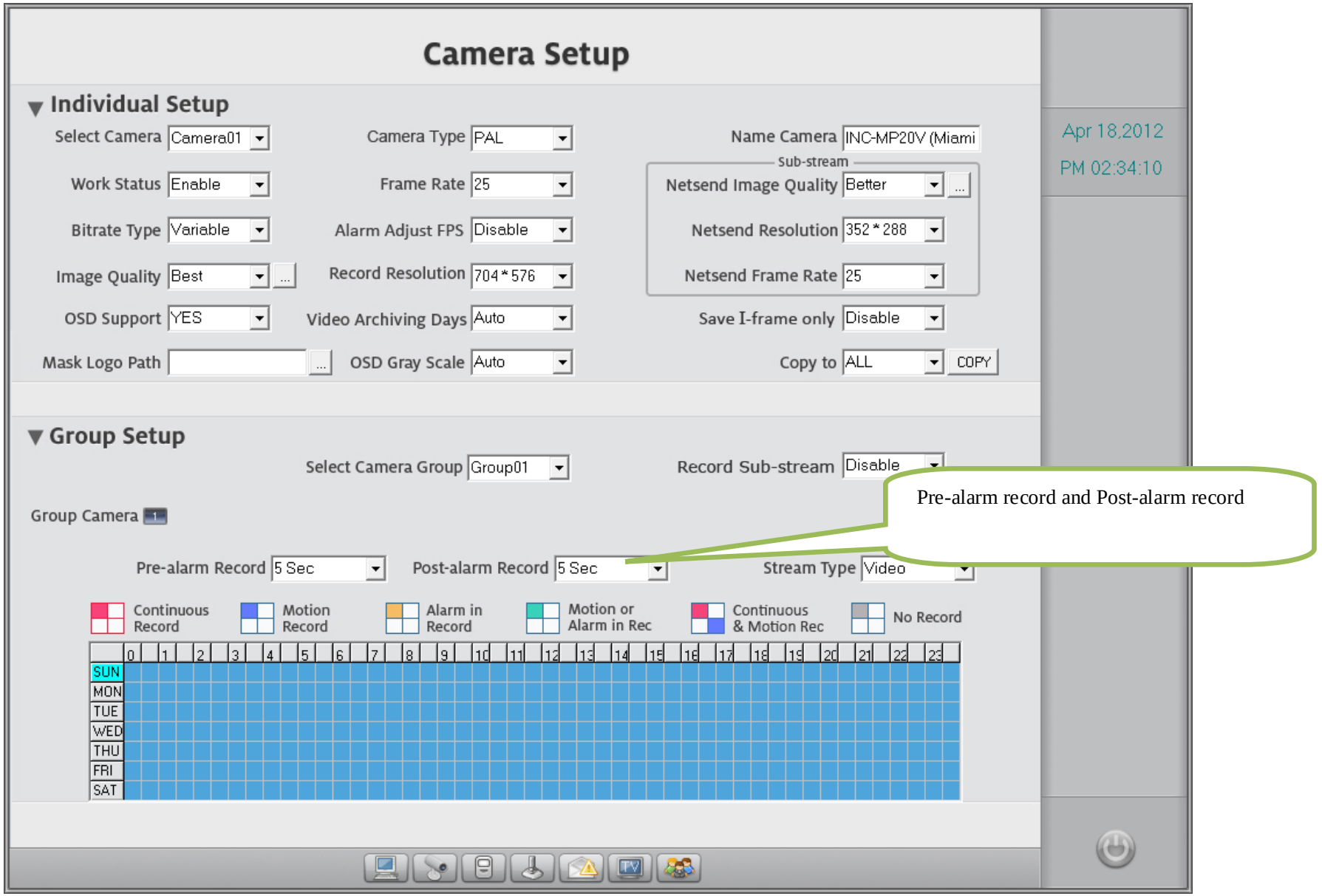
**Step 2:** Setup IP camera connection "Stream Type" as Double Stream (see below picture). Double stream means record at main-stream and preview at sub-stream but full screen preview (1 split) still uses main-stream. This is best setting to save system resources.



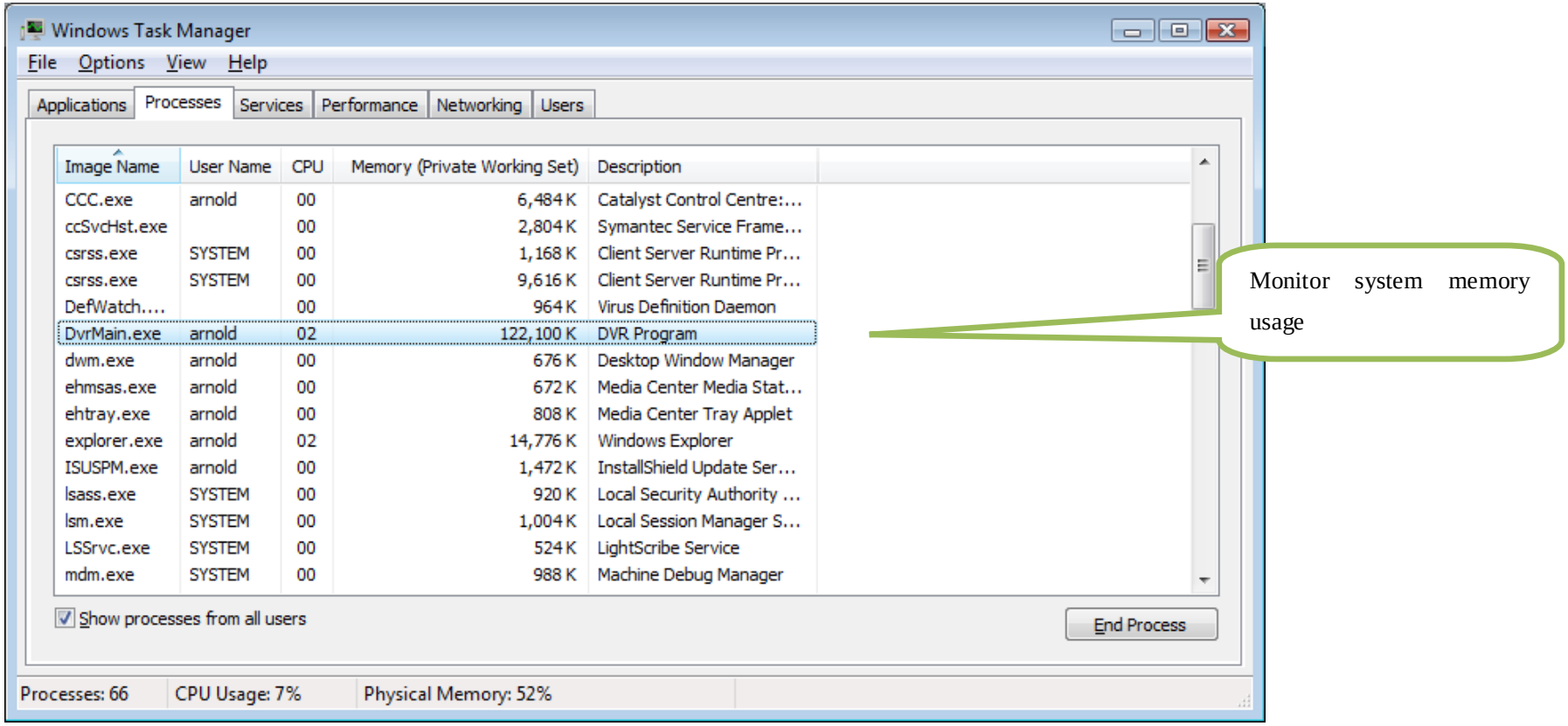

**Step 3:** Set I-frame interval number equal to or less than Frame Rate number, this setting means DVR Server can get at least one I- frame every second. If HVR Server can't receive I frame in 4.5 seconds, it will popup video lost warning. If I-frame loss too much, it will buffer a lot of B fame and P frame. Then the system memory usage will expand continuously until the system crash. Please refer to IP camera specification to understand the relationship between Resolution and Frame Rate. Default settings don't mean the best performance setting. For some models of IP camera or old version HVR Server software, there is no I Frame setting in IP Device Setup interface, please enter IE Setup interface (Video Setting) to configure the I Frame Interval.


Device
Channel
Serial
Alarm
PTZ
User
IP Device Setup
Channel
Camera1
Channel Name
INC-MP20V (Miami warehouse)
Compress Para. Setup
Stream Type
Main Stream
Image
Best
Video Type
Video
Resolution
UXGA(160
Bit Rate
VBR
Frame Rate
12
Max Bit
Custom
4096
kbps
I Frame
12
BP Frame
S-P-F
Compression
Audio Type
OggVorbis
Frame Interval
I Frame Interval
Record Para.
Prerecord Time
5 s
Record Delay
5 s
Picture Parameter
Hide Area
Setup
Motion Detect
Setup
Video Lost
Setup
Show OSD
X
0
Show Week
OSD
Not Clarity-Not Glitter
Y
32
Hour Type
24
OSD Type
XX-XX-XXXX (MDY)
Channel Name
X
240
Y
448
String
Copy To Channel
All
Copy
Save
Refresh
Manage...
Exit

**Step 4:** Please setup reasonable Pre-alarm record time and Post-alarm record time according your computer performance, specially refer to memory usage.

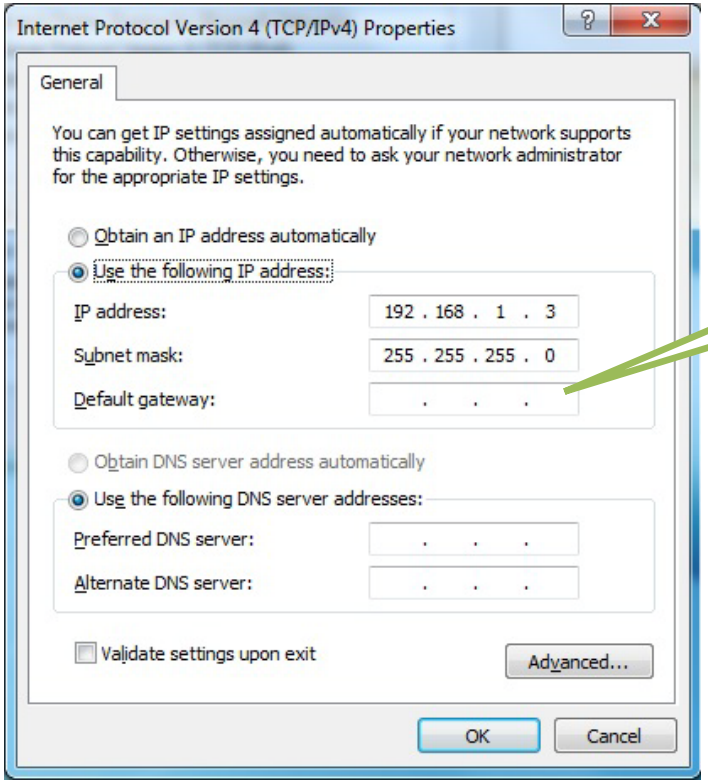


**Step 5:** If you setup Video Analytics, please open Windows Task Manager to track the system resources. If the Memory usage of DvrMain.exe exceed 1.5GB (1,500,000K) for long time, the system is easy to crash because other operation might increase memory usage such as Live Center connection.


Windows Task Manager
File Options View Help
Applications Processes Services Performance Networking Users
Image Name | User Name | CPU | Memory (Private Working Set) | Description
CCC.exe | arnold | 00 | 6,484 K | Catalyst Control Centre:...
ccSvcHst.exe | | 00 | 2,804 K | Symantec Service Frame...
csrss.exe | SYSTEM | 00 | 1,168 K | Client Server Runtime Pr...
csrss.exe | SYSTEM | 00 | 9,616 K | Client Server Runtime Pr...
DefWatch.... | | 00 | 964 K | Virus Definition Daemon
DvrMain.exe | arnold | 02 | 122,100 K | DVR Program
dwm.exe | arnold | 00 | 676 K | Desktop Window Manager
ehmsas.exe | arnold | 00 | 672 K | Media Center Media Stat...
ehtray.exe | arnold | 00 | 808 K | Media Center Tray Applet
explorer.exe | arnold | 02 | 14,776 K | Windows Explorer
ISUSPM.exe | arnold | 00 | 1,472 K | InstallShield Update Ser...
lsass.exe | SYSTEM | 00 | 920 K | Local Security Authority ...
lsm.exe | SYSTEM | 00 | 1,004 K | Local Session Manager S...
LSSrvc.exe | SYSTEM | 00 | 524 K | LightScribe Service
mdm.exe | SYSTEM | 00 | 988 K | Machine Debug Manager
Show processes from all users
End Process
Processes: 66 CPU Usage: 7% Physical Memory: 52%
Monitor system memory usage

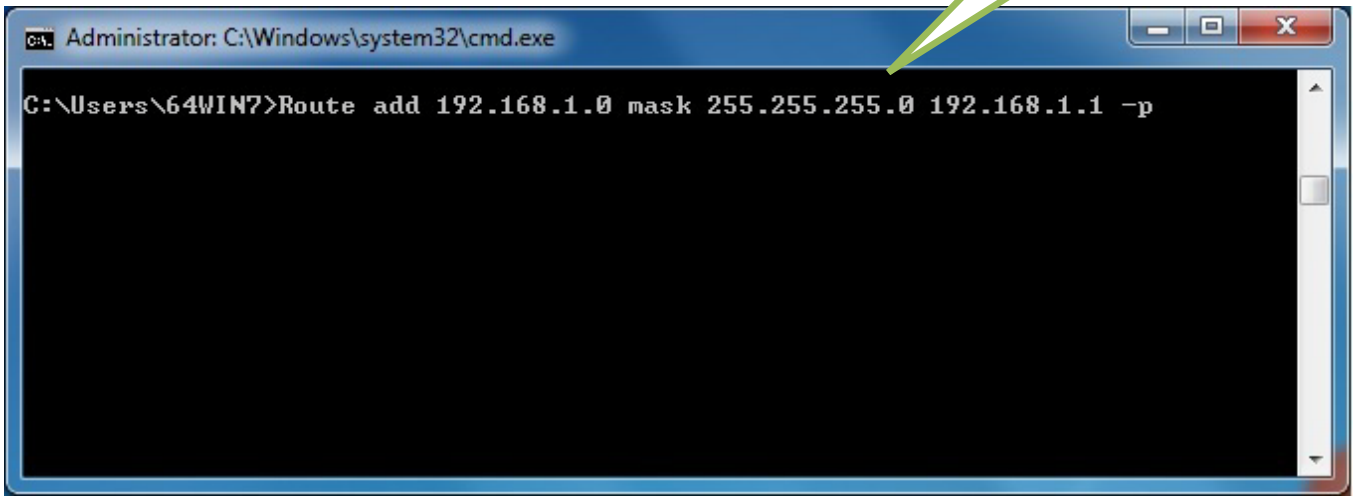
**Step 6:** Use dual network interface to accelerate network speed and separate local office working network. If you share your local office network with IP video surveillance, the huge video stream data might slow down the network speed. To avoid this happen, you should build a dedicated network for surveillance and add second network card to your system, use one network interface to connect IP cameras, use another network interface to connect local office working network.

Please refer to following picture to configure second network interface. In order to enable HVR Server to recognize the second IP address, you must use Route Add commander to add a permanent route table.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 3
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

Don’t input Default gateway

Add permanent route table



## 1.7. Motion Detect Setup

In the main interface Tool panel, click the button to bring up the **Motion Detect Setup** interface. Here you will set each of your camera's motion detect zones, sensitivity, and dynamic scales.

**Operation Steps:**

**Step 1:** Hold down the left mouse button and draw a rectangular zone around the object you would like to monitor. You can make a total 12 zones for each camera. Default setting is set to full screen.

**Step 2:** Adjust the motion detect sensitivity scale. 1 = highest sensitivity, 6= lowest sensitivity.

**Step 3:** Set the **Dynamic Scale** to prevent small moving objects, such as cats or small dogs, to trigger the motion detector. The Dynamic Scale is the ratio of a moving object's size compared to the whole image size. Low value means high sensitivity. 1% is the highest sensitivity.

**Step 4:** Click the "**Test**" button to test your settings. The motion detect area will show in yellow grid.

**Step 5:** To setup motion detect record schedule, please refer to the Camera Setup in Section 4.2.

**Step 6:** To setup motion detect alarm schedule, please refer to the PTZ Setup & Motion Alarm in Section 4.5

## 1.8. Video Analytics Operation

### 1.8.1 Introduction and Basic knowledge

There are 7 functions of intelligent video analytics in HVR Server program but each camera supports only one function. If you use mega pixel camera to do video analytic job, you should be careful of system memory usage because the mega pixel camera needs a lot of buffer. You can open Windows Task Manager to monitor the memory usage of DvrMain.exe in Processes tab, that's the program memory usage. The maximum memory value should be less than 1.5GB.
To enter video analytics setup interface, please choose one camera and right click the image, select Video Analytics from right-click menu.

| | | |
|---|---|---|
| **1** | | The image scale bar is used to adjust the resolution of the image for video analytic. The lower the value, the more close to the original real image. For example: the resolution of the source video is 1600*1200, you set the image scale as 2, then the length and width will be shrunk to 1/2 of original resolution as 800*600 for detection. Default value is 1. |
| **2** | | The sensitivity bar is used to adjust the sensitivity of detection. The lower the value, the more sensitive. Default value is 10. |
| **3** | | The volume ratio bar is used to set the minimum threshold. Its unit is percent. That means the minimum detection area acreage equivalent to the percent of whole detection zone acreage. If the acreage of movement area is smaller than the setting value, system will ignore the moving. The default value is 10% |
| **4** | | This option allows you to specify the duration time of an object missing or unattended to invoke the detection. If the image changed and then restore in this time, system will not trigger alarm. |
| **5** | | The minimum movement size or detection area. Click button ... then use the mouse to outline a rectangular zone on the image. Click the button ... again to get the setting value. |
| **6** | | The opposite setting to above minimum size setting. |
| **7** | | Set detect moving direction. Click button ... then use the mouse to draw an arrow on the image. Click the button ... again to get setting value. **Notes: Only the last drawing direction is available.** |
| **8** | | Set an offset value in pixels to allow certain of movement offset. For example you set the value 3, if one object moves in a range of 3 pixels, system will ignore this movement. |

| | | |
|---|---|---|
| **9** | | Set the scene of camera view. |
| **10** | | The Movement Speed value bar is used to adjust the objects' moving speed. |
| **11** | | Set video analytics system working time table. Click button ... to bring up the time schedule interface. |
| **12** | | Enable the system to trigger an alarm output. Click the ... button to assign output device. |
| **13** | | Enable the system to play an audio file in .wav format when alarm occurred. Click the ... button to set the file path. The maximum file size is 200K. |
| **14** | | Check on to enable display the detection zone in live image |

### 1.8.2 Unattended Object and Missing Object Detection

Unattended object and Missing Object Detection are similar functions but Missing Object Detection more focus on existing objects. The solution provides real-time automatic detection of new or missing objects in a complex visible scene. It can be used in monitoring systems in bus or railway stations, in crowded areas, or in video surveillance systems in supermarkets or museums. The solution is ideal to identify potentially hazardous luggage or to prevent store-thefts.

To setup an Object Missing Detection, please follow these operation steps and refer to following illustration image:

1). Click dropdown list and select Missing Object Detection

2). Click button then left-click on the image to start drawing a detection zone, you should left-click mouse at each corner and right-click to end drawing. You can draw any irregular zone and multiple zones to meet your requirements.

3). If you want to modify detection zone, please delete it by clicking button and then draw again.

4). Adjust proper Image Scale, Sensitivity, Volume Ratio and Duration Time according to your camera scene or just keep default.

5). Check on

and click button

to set system working time table.

6). Check on Trigger Alarm Output and click button

to set alarm out port if you have alarm device hardware connection.

7). Check on Invoke Audio Alarm and locate the wav audio file path.

8). Click button

to initial the function. Then click "Save" and "Exit". **For your attention,** After Object Missing occurs, you should enter Video Analytics setup interface again and click button

to end the alarm.

9). If you have modified the parameters, please click button

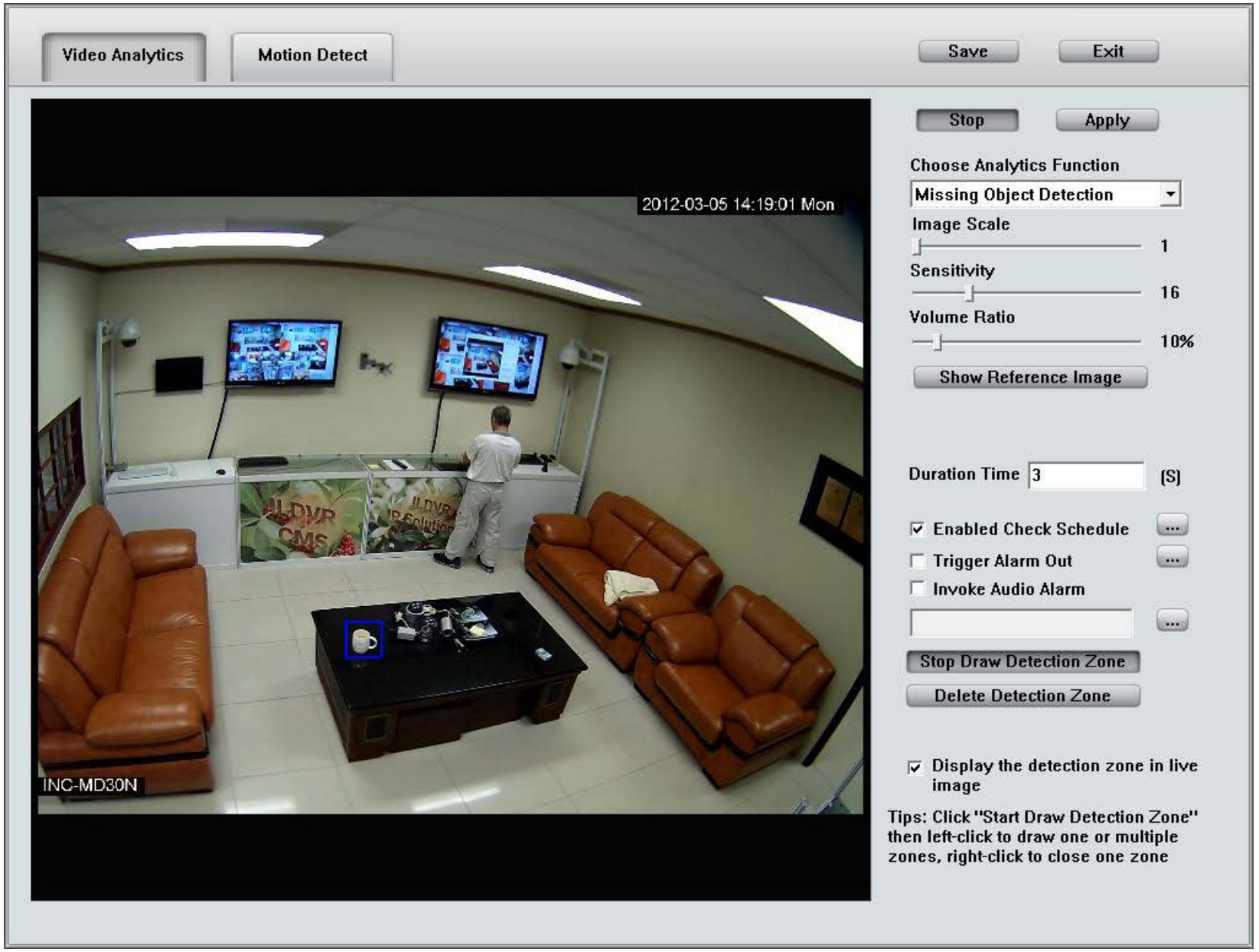
to save them.

10). While you click the Start or Apply button, the system will automatically grab an image for reference. You can see the image by clicking the button

.

In Unattended Object Detection, when any object appears and remains stationary for the duration time, a warning message will appear and its location will be highlighted with red box in live video, the selected alarm audio and output will be activated, and the event will be recorded as unattended object in system Log for later retrieval

In Missing Object Detection, when any object in the detection zone disappears for 3 seconds from the camera view, a warning message will pop up and its location will be highlighted with red box in the live video, the selected alarm output will be activated, and the event will be recorded as missing object in system log for later retrieval.


Video Analytics
Motion Detect
Save
Exit
Stop
Apply
2012-03-05 14:19:01 Mon
INC-MD30N
Choose Analytics Function
Missing Object Detection
Image Scale
1
Sensitivity
16
Volume Ratio
10%
Show Reference Image
Duration Time
3
(S)
Enabled Check Schedule
Trigger Alarm Out
Invoke Audio Alarm
Stop Draw Detection Zone
Delete Detection Zone
Display the detection zone in live image
Tips: Click "Start Draw Detection Zone" then left-click to draw one or multiple zones, right-click to close one zone

### 1.8.3 Movement Direction Detection

To setup a Movement Direction Detection, please follow these operation steps:

1). Click

dropdown list and select Movement Direction Detection

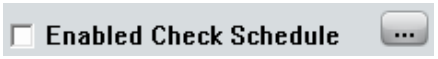
2). Click button

then left-click on the image to start drawing a detection zone, you should left-click mouse at each corner and right-click to end drawing. You can draw any irregular zone and multiple zones to meet your requirements.

3). If you want to modify detection zone, please delete it by clicking button

and then draw again.

4). Adjust proper Image Scale, Sensitivity according to your camera scene or just keep default.

5). Check on 

and click button

to set system working time table.

6). Click button

on the right of Minimum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the minimum value.

7). Click button

on the right of Maximum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the maximum size value.

8). Click button

on the right of Direction

then use the mouse to draw an arrow on the image. Click the button

again to get direction angle value.

9). Set offset value in pixels.

10). Check on Trigger Alarm Output and click button

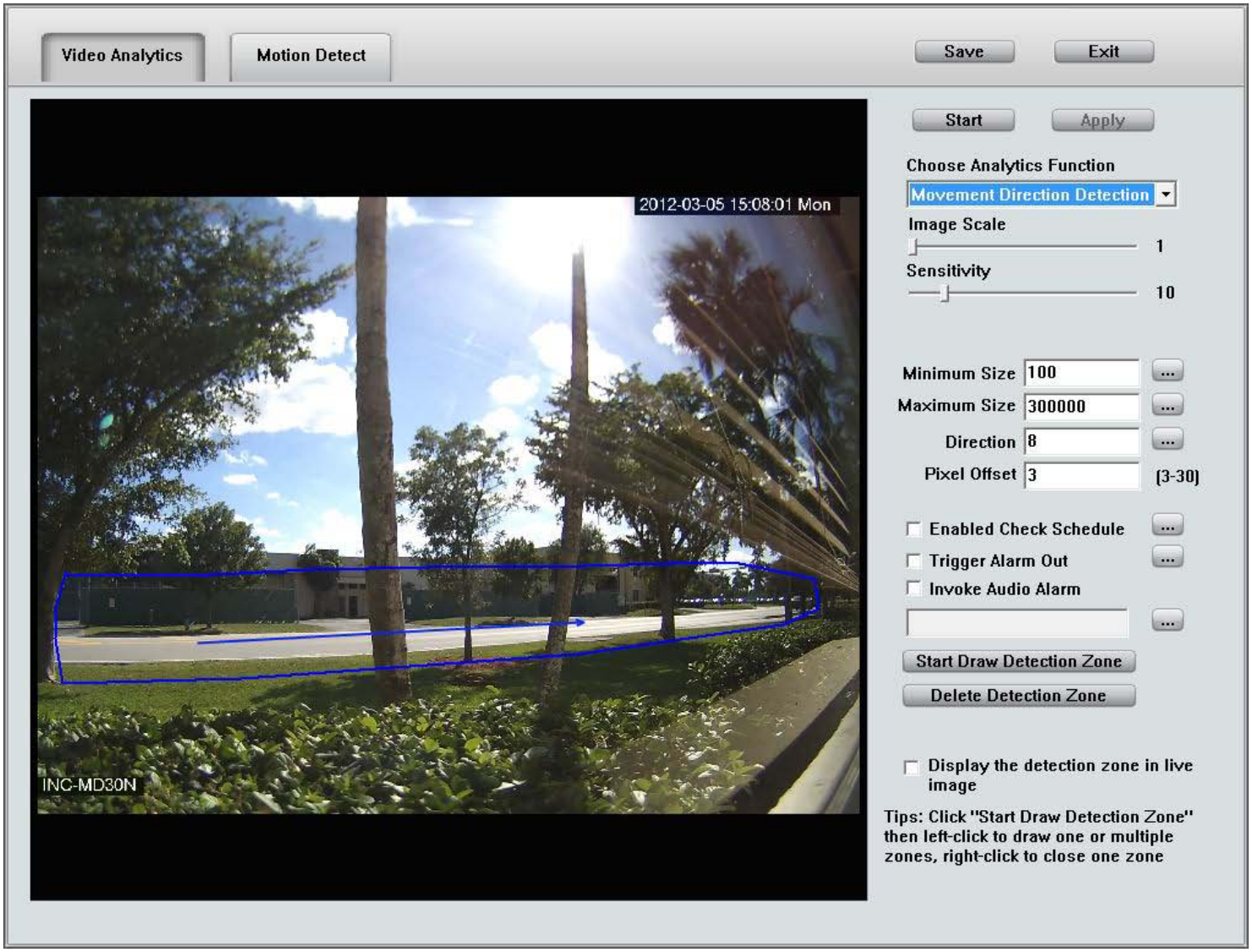
to set alarm out port if you have alarm device hardware connection.

11). Check on Invoke Audio Alarm and locate the wav audio file path.

12). Click button

to initial the function. Then click “Save” and “Exit”.

When a moving object appears in the detection zone, the reverse arrow direction object will be highlighted with red box, the selected alarm output will be activated, and the event will be recorded as movement direction alarm in system log for later retrieval. At the same time the object along with the arrow direction will be highlighted with green box.



### 1.8.4 Intrusion Detection

To setup an Intrusion Detection, please follow these operation steps:

1). Click

dropdown list and select Intrusion Detection

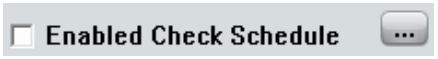
2). Click button

then left-click on the image to start drawing a detection zone, you should left-click mouse at each corner and right-click to end drawing. You can draw any irregular zone and multiple zones to meet your requirements.

3). If you want to modify detection zone, please delete it by clicking button

and then draw again.

4). Adjust proper Image Scale, Sensitivity according to your camera scene or just keep default.

5). Check on 

and click button

to set system working time table.

6). Select Indoor or Outdoor mode according your camera scene.

7). Click button

on the right of Minimum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the minimum value.

8). Click button

on the right of Maximum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the maximum size value.

9). Check on Trigger Alarm Output and click button

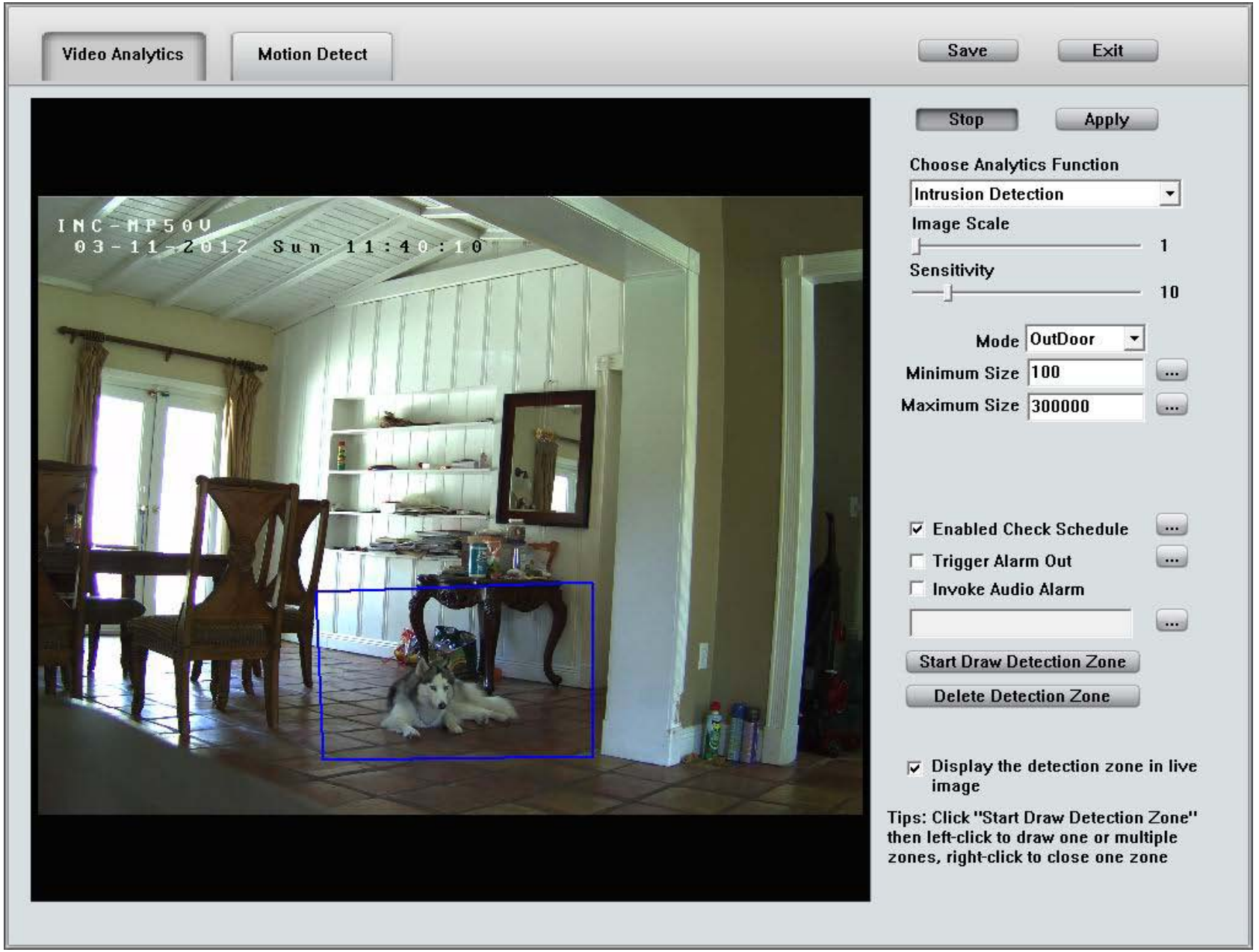
to set alarm out port if you have alarm device hardware connection.

10). Check on Invoke Audio Alarm and locate the wav audio file path.

11). Click button

to initial the function. Then click “Save” and “Exit”.

When an object intrude the detection zone, its location will be highlighted with red box in the live video, the selected alarm output and audio will be activated, the event will be recorded as Intrusion detection alarm in system log for later retrieval.


Video Analytics
Motion Detect
Save
Exit
Stop
Apply
INC-MP50V
03-11-2012 Sun 11:40:10
Choose Analytics Function
Intrusion Detection
Image Scale
1
Sensitivity
10
Mode
OutDoor
Minimum Size
100
Maximum Size
300000
Enabled Check Schedule
Trigger Alarm Out
Invoke Audio Alarm
Start Draw Detection Zone
Delete Detection Zone
Display the detection zone in live image
Tips: Click "Start Draw Detection Zone" then left-click to draw one or multiple zones, right-click to close one zone

### 1.8.5 Tripwire Detection

Tripwire solution enables operators to quickly and easily set up virtual tripwires, either along existing fence lines or in areas where physical security is impossible or impractical (railway tracks, access routes). Typical applications include protection of sites with controlled access to critical areas (Airport Perimeters, Power Stations), monitoring of traffic flow (illegal entrance to one way streets), alert operators / staff should a restricted zone be entered without authorization.

To setup Tripwire Detection, please follow these operation steps:

1). Click

dropdown list and select Tripwire Detection

2). Click button

then left-click on the image to start drawing a detection zone, you should left-click mouse at each corner and right-click to end drawing. You can draw any irregular zone and multiple zones to meet your requirements.

3). If you want to modify detection zone, please delete it by clicking button

and then draw again.

4). Adjust proper Image Scale and Sensitivity according to your camera scene or just keep default.

5). Click button

then draw the tripwire. Click button again the end drawing. System will save your last drawing.

6). Check on

and click button

to set system working time table.

7). Click button

on the right of Minimum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the minimum value.

8). Click button

on the right of Maximum Size

then use the mouse to outline a rectangular zone on the image. Click the button

again to get the maximum size value.

9). Click button on the right of Direction then use the mouse to draw an arrow on the image. Click the button again to get direction angle value.

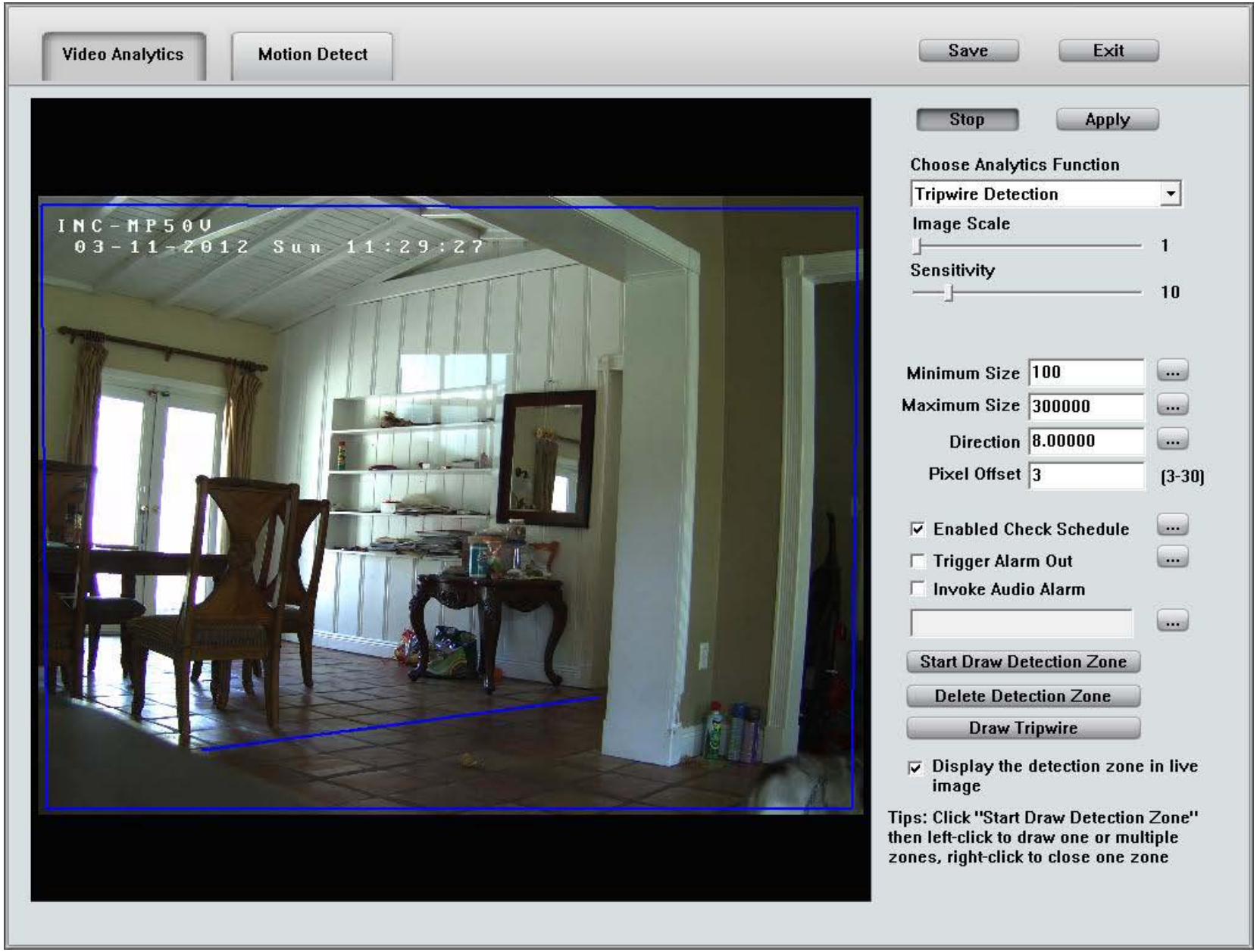
10). Set offset value in pixels.

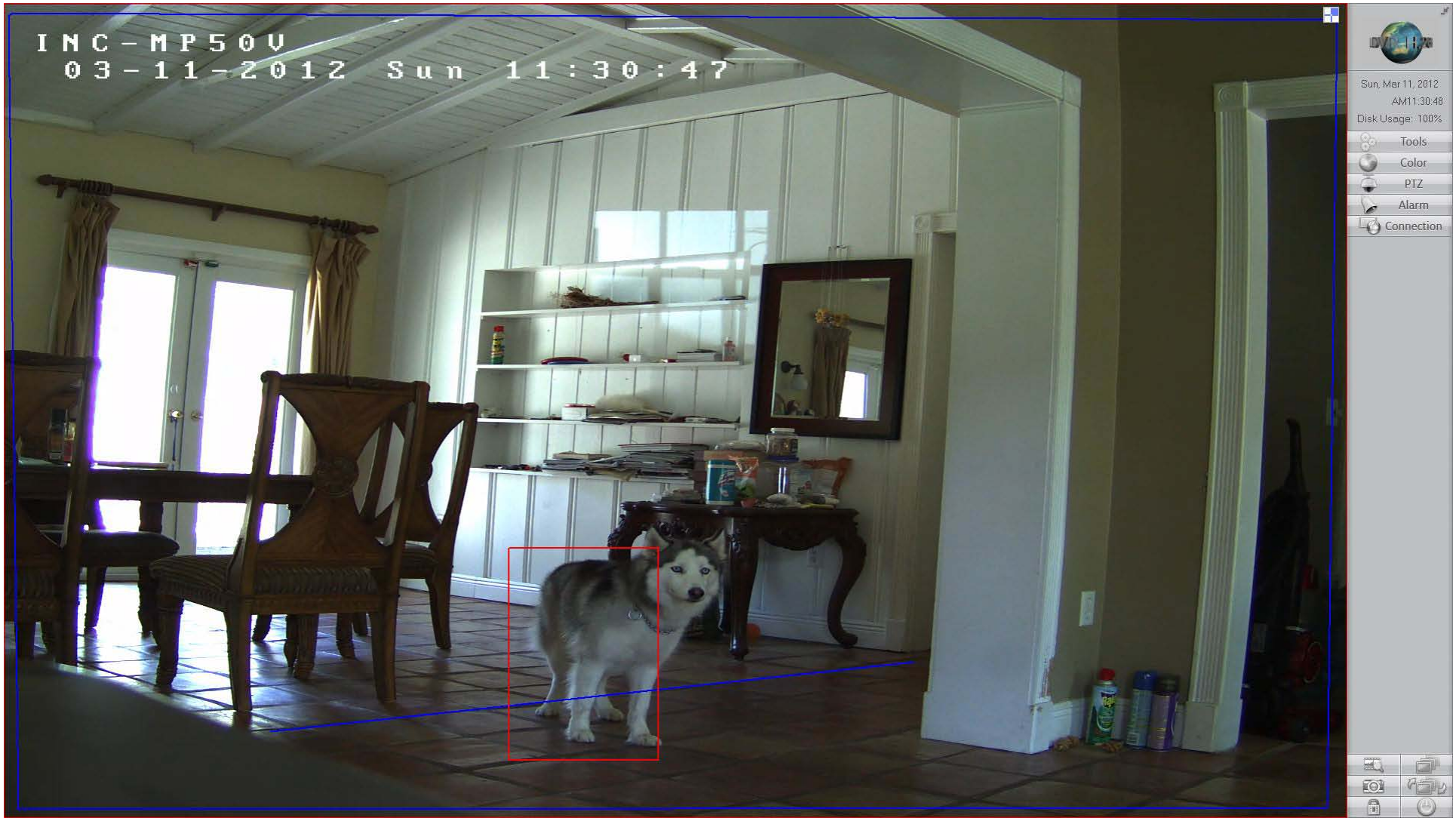
11). Check on Trigger Alarm Output and click button to set alarm out port if you have alarm device hardware connection.

12). Check on Invoke Audio Alarm and locate the wav audio file path.

13). Click button to initial the function. Then click “Save” and “Exit”.

When a moving object reverse the arrow direction steps on the tripwire, it will be highlighted with red box, the selected alarm output will be activated, and the event will be recorded as movement direction alarm in system log for later retrieval


Video Analytics
Motion Detect
Save
Exit
Stop
Apply
INC-MP50V
03-11-2012 Sun 11:29:27
Choose Analytics Function
Tripwire Detection
Image Scale
1
Sensitivity
10
Minimum Size
100
Maximum Size
300000
Direction
8.00000
Pixel Offset
3
(3-30)
Enabled Check Schedule
Trigger Alarm Out
Invoke Audio Alarm
Start Draw Detection Zone
Delete Detection Zone
Draw Tripwire
Display the detection zone in live image
Tips: Click "Start Draw Detection Zone" then left-click to draw one or multiple zones, right-click to close one zone




### 1.8.6 Face Recognition

**Face recognition technology** can be used for different security applications where it is important to verify or identify a person by face. To setup a Face Recognition,

please follow these operation steps:

1). Click

dropdown list and select Face Recognition

2). Click button

then left-click on the image to start drawing a detection zone, you should left-click mouse at each corner and right-click to end drawing. You can draw any irregular zone and multiple zones to meet your requirements.

3). If you want to modify detection zone, please delete it by clicking button

and then draw again.

4). Adjust proper Image Scale according to your camera scene or just keep default.

5). Check on

and click button

to set system working time table.

6). Check on Trigger Alarm Output and click button

to set alarm out port if you have alarm device hardware connection.

7). Check on Invoke Audio Alarm and locate the wav audio file path.

8). Click button

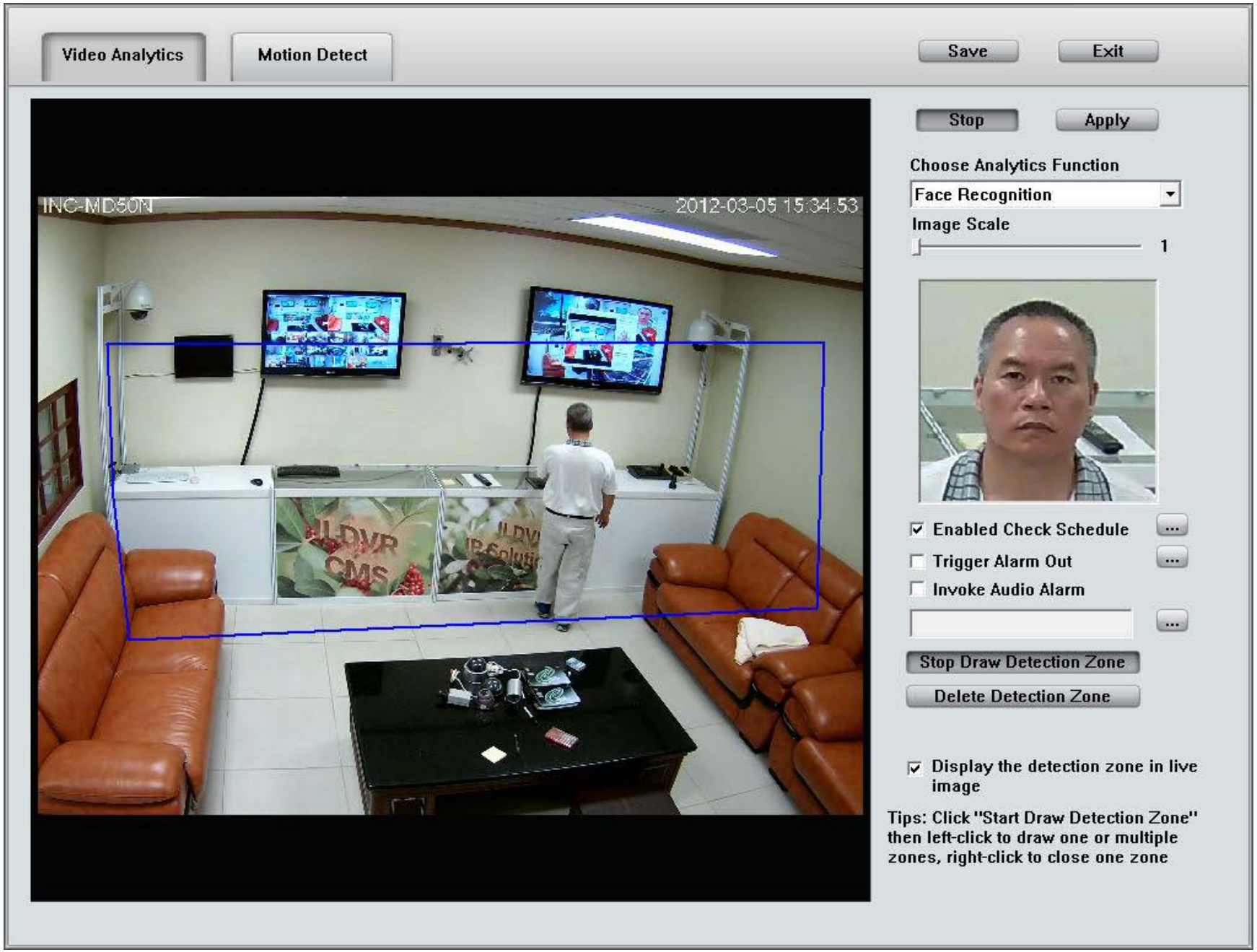
to initial the function. Then click “Save” and “Exit”.

**For your attention**, the following factors may reduce the accuracy of Face Recognition:

A. People wear sunglasses or black box glasses.

B. Personal face contour could not clearly seen, especially the eyes.

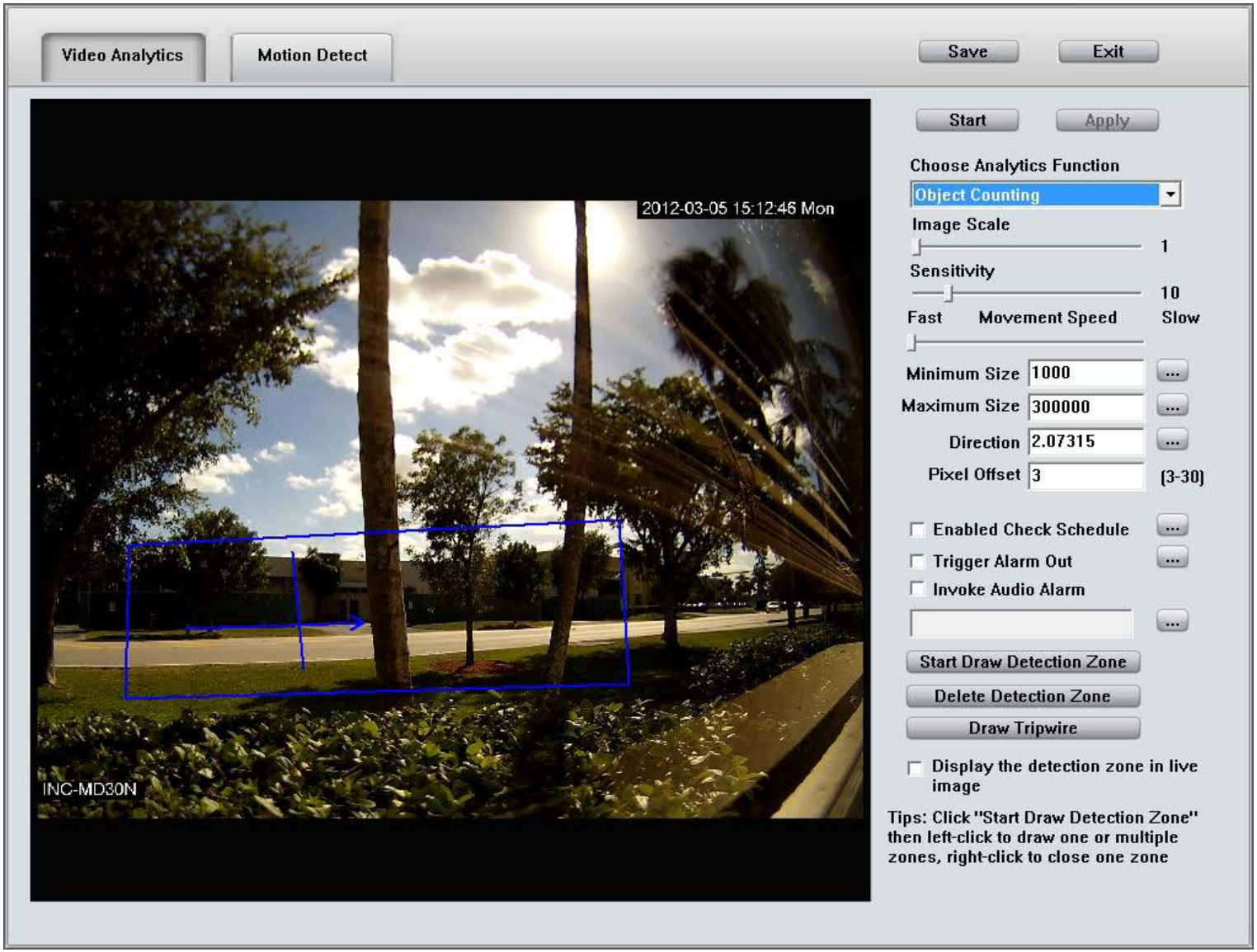
C. The tilt angle of personal face in the camera view is too large.

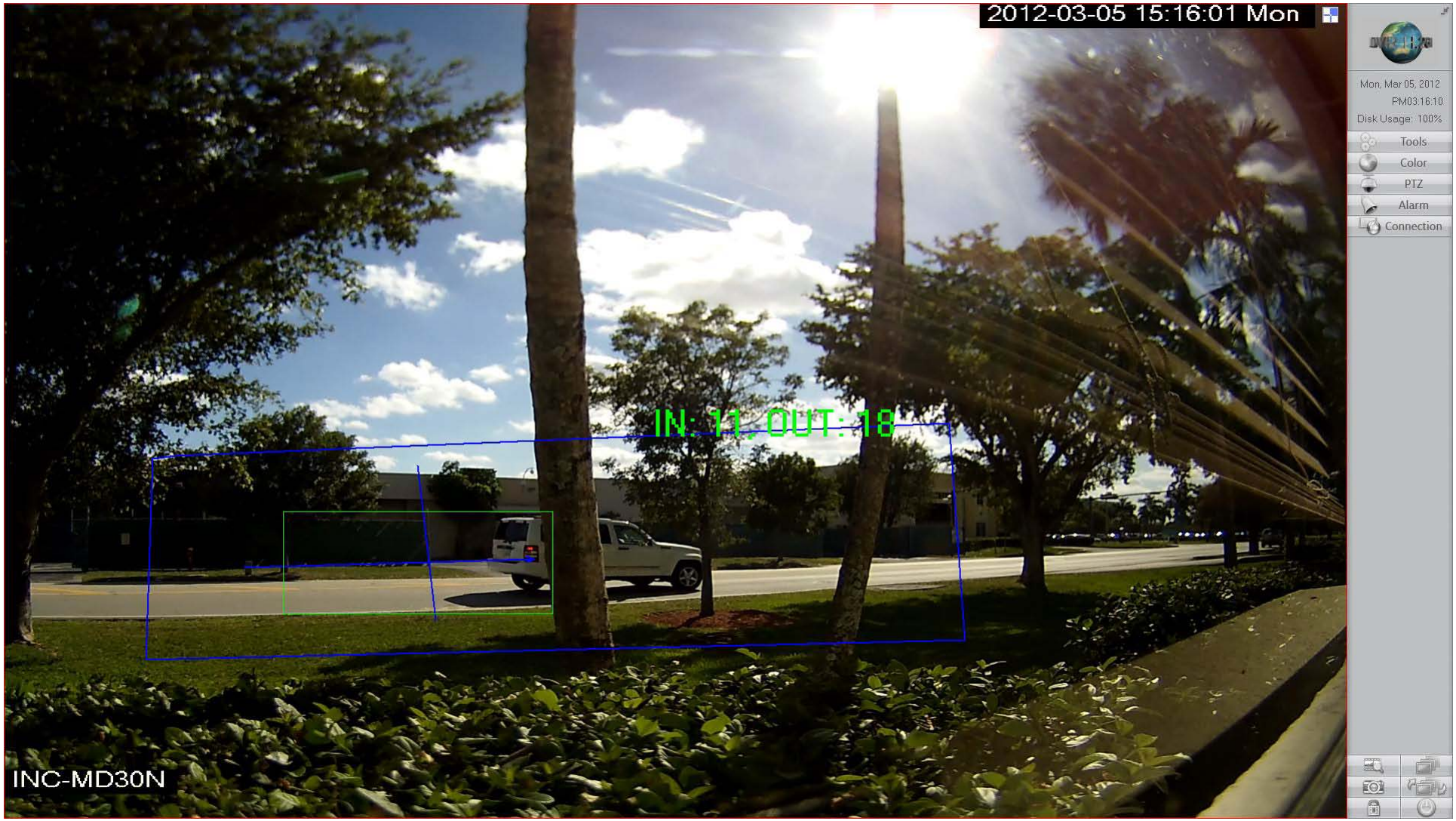

Video Analytics
Motion Detect
Save
Exit
Stop
Apply
Choose Analytics Function
Face Recognition
Image Scale
1
INC-MD50N
2012-03-05 15:34:53
Enabled Check Schedule
Trigger Alarm Out
Invoke Audio Alarm
Stop Draw Detection Zone
Delete Detection Zone
Display the detection zone in live image
Tips: Click "Start Draw Detection Zone" then left-click to draw one or multiple zones, right-click to close one zone

### 1.8.7 Object Counting

The Object Count setup setups are similar to Tripwire except the Movement Speed parameter.

The object counting provides bi-directional counting of moving objects in the detection area. When a moving object reverse the arrow direction steps on the tripwire, system count it as 1 In, otherwise when a moving object along with the arrow direction steps on the tripwire, system count it as 1 Out.



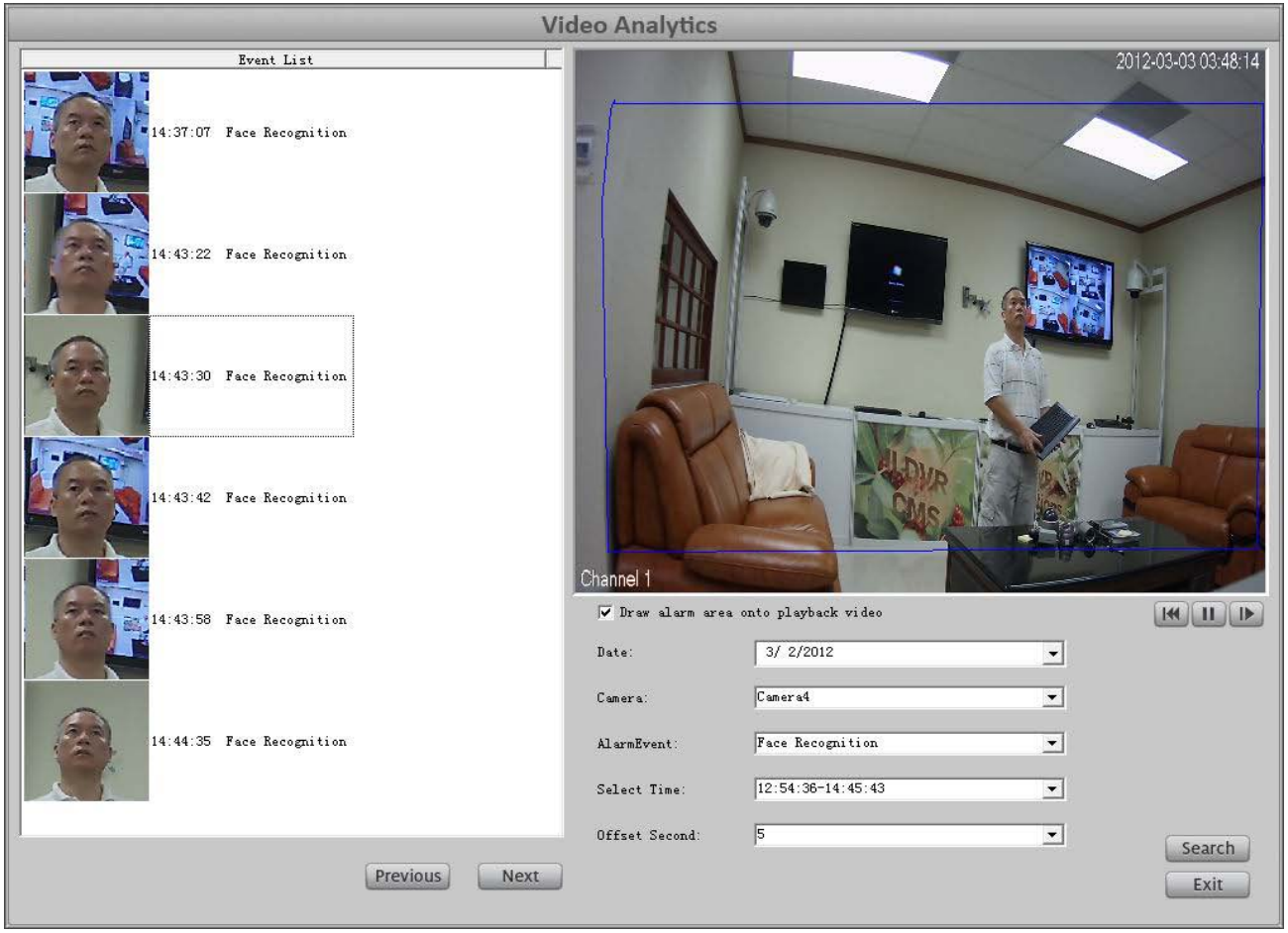



### 1.8.8 Motion Detection

The Motion Detection is only available in IP camera. It is designed for the IP cameras without motion detect function. If your IP camera support motion detect, please don't use this feature because it will reduce system performance. The setup steps are simple and easy, please refer to above sections.

### 1.8.9 Video Analytics Playback

To enter video analytics playback interface, please right-click any camera then select Video Analytics → Video Analytics Playback from right-click menu. In the Video Analytics playback interface, select the camera which you want to search, select an alarm event, then set a date and time, click "Search" button. The search result will display in the left information box, double click a message to display the image.



### 1.8.10 Object Counting Analysis

To enter Object Counting Analysis interface, please right click any camera then select Video Analytics → Object Counting Analysis from right-click menu. In the Object Counting interface, select the camera which you want to operate, set start date and end date, choose count style then click “Count” button to show the statistic data.

ObjectCount
In Count
Count
Hour
2 2 1 1 4 5 74 308 458 631 515 612 441 492 284 299 433 653 264 65 25 15 8 8
Out Count
Count
Hour
5 2 1 2 1 8 57 344 670 769 588 692 493 593 301 299 353 570 158 76 27 15 10 4
Choose Camera
Carmera1
Start Date
3/ 5/2012
End Date
3/13/2012
Choose Count Style
Chain count by month
Chain count by week
Chain count by day
Chain count by hour
Count
Exit

## 1.9. System Search (Playback)

On the main interface, press the button to enter **Playback mode**. If your HVR system supports multiple monitors, the playback camera will display on the assigned monitor.

**Tips: Right click the picture to perform full screen viewing mode. Double click one camera to zoom out it full screen mode.**

### 1.9.1 Playing button Discriptions

From left to right: Previous minute, Next minute, Play/Pause, Stop, Next Frame.

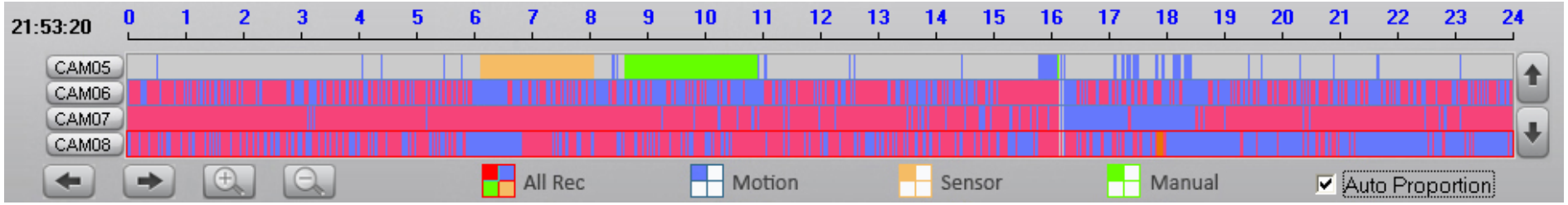
Press this button for reverse play

From left to right: Press the button for one camera view, four camera views, nine camera views, sixteen camera views.

Double click the audio bar or move slider to adjust the voice volume. Click the left button to close audio.

Double click the speed bar or move slider to adjust the playing speed. Click the left button to restore normal speed.

### 1.9.2 Time Slice Bar




Here offers a kind of fast and visually search operation. Double click anywhere in the time area, the HVR will immediately playback the video from that moment. Different color represents different type of record.

- Red color means Continuous Record
- Blue color means Motion Detect Record
- Yellow color means Sensor Alarm Record
- Green color means Manual Record

Grey color means No Record

Press this button to show up all recorded data in the active day. Press this button to show up all Motion Detect Record data in the active day.

Press this button to show up all Sensor Alarm Record data in the active day. Press this button to show up all Manual Record data in the active day.

### 1.9.3 Date Panel

Press the "**Date**" button to bring up the **Calendar**. Double click the date number to search video record in the day.

A highlighted **blue** number indicated that there is recorded data for that day.

A highlighted **green** number indicates the current active date.

A highlighted **gray** number indicates that there is no recorded data for that day.

Click or to change the year and month.

### 1.9.4 Camera Panel

Press the "**Camera**" button to bring up the camera panel. Click on a sub-window to highlight it then click on a camera number to initiate the HVR system to play back the recorded data in the highlight sub-window from the beginning of the day. The camera number icon has two status colors:

**Grey color** indicates that the camera has no recorded video for this day.

**Light blue** color indicates that the camera has recorded video for this day.

Press the button to synchronize all of the cameras to play at the same time marker.

### 1.9.5 File List Panel

Here offers another fast search method. The operation steps show on the following illustration.

### 1.9.6 Color Panel

Press the "**Color**" button to adjust the image color. See the **Color/Audio Adjust Panel** on Section 1.3 of this manual.

### 1.9.7 Tools Panel

Capture a still picture while in play back mode by pressing this button. See Section 1.12.6.

View the captured image.

Print the captured picture saved on the hard disk.

Press this button to play all cameras in current split view. If the cameras number exceeds the split window number, you should be asked for choosing.

Press this button to stop all playing video.

Zoom out on the video. Press this button to activate image the zoom function. With the left mouse button, draw a rectangle zone in the camera view and the image you highlighted will be magnified. Right clicking on the image will restore it back to normal. Press the zoom button again to end zoom mode.

Create a video clip and save it.

Backup your camera footage to the disk drive.

Review video clips.

Burn a backup data DVD/CD. See Section 1.10.

### 1.9.8 Object Search

**Object Search**, also known as **Smart Search**, it is a useful tool to save time when looking for an event. It fully utilizes the DVR Motion Detect technology and data analysis function. No matter what kind of record type it is, the HVR always saves the camera image for data analysis. This makes it easy to search a certain area in one

camera at fast speeds.

After one camera starts its playback, press button to enter **Object Search mode**. Left click, hold and drag the mouse to draw a rectangular area (in green). The search engine will quickly analyze the movement in that particular area. The Object Search starts the second you press the button. The HVR system will skip all moments that don't show any movement and jump to display the motion video it has recorded. Press button again to end Object Search.

**Notes:**

- **Clicking the "Align" button will stop the Object Search while it's still running.**
- **The sensitivity of Object Search depends on the Motion Detection settings. A reasonable sensitivity should be set according to the camera quality and its install surroundings. If a high sensitivity was set, the HVR system will take longer to search, even when there is no motion in the specified area. If a low sensitivity was set, the HVR system will not search even if there is some small range motion in specified area.**

### 1.9.9 Incremental search

**Incremental Search**, also known as **Icon Search**, is a tool used to playback one camera at different periods of time, showing the video in multiple windows. Every sub-window shares an interval time, but the start time is incremental. Before you press the button to enter Incremental Search mode, please make sure that the current split view mode is your expected split view.

Select which camera to search.

Set the time interval of the different sub-window.

Set the start time and end time.

### 1.9.10 POS search

Press the button to enter the **POS Search** interface. Select a camera and set a start time and end time. Press the "**Search**" button and all the POS record data will display on the left table. Just double click a record to begin playback.

#### 1.9.11 ACU search

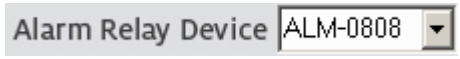
Press the button to enter the **ACU Search** interface. Select a camera and set a start time and end time. Press the "**Search**" button and all the ACU record data will display on the left table. Just double click a record to begin playback.

## 1.10. System Alarm Control

### 1.10.1 Sensor alarm trigger relay out

This function needs an alarm controller to support it. Operation steps: (Refer to Section 1.4.3)

- Set alarm controller device type and connecting port.



Select alarm control device.

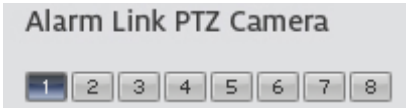
Select alarm control device connecting COM port.

- Set the sensor's Check Alarm schedule.
- Set link camera groups and relay out ports.

### 1.10.2 Sensor alarm trigger PTZ preset

This function requires a High Speed Dome (PTZ camera). Operation steps: (Refer to Section 1.4.3)

-

Select the sensor to configure.
- 

Select which Speed Dome corresponds to this sensor.

-

Set the preset number. The speed dome will automatically move to this position when there is an alarm.

### 1.10.3 Motion alarm trigger relay out

This function requires an alarm controller. Motion detect alarms must be configured one by one for these cameras. Operation steps: (Refer to Section 1.4.4).

-

Select camera to configure.
-

Select which relay out ports respond to this camera. One camera can trigger multiple ports.
- Set the Motion Detect check alarm schedule.

### 1.10.4 Motion alarm trigger PTZ preset

This function requires a High Speed Dome (PTZ camera). Refer to Section 1.6, "**Motion Detect Setup**".

Enter the motion detect setup interface and select the target camera to be configured. Press the "**Link to PTZ**" button to activate the optional settings. After setup finishes, press this button again to save all settings.

Select how many Motion Detect zones you want to use in a whole image area. You can chose up to 128 zones, where one preset represents one zone.
Select one of the zones (for example, zone 01) and draw a rectangular pane (define a motion detect zone).
Select the PTZ camera name.
Select the preset name to link the above mentioned zone (zone 01).

### 1.10.5 Sound alarm trigger beep

This function requires a microphone for it to work. When the HVR system detects that the sound signal exceeds the preset bit rate, the mini-speaker connecting to the motherboard will beep.

-

Set alarm beep to "**Enable**".
- Enter motion detect setup interface, select target camera to be set. The operating audio channel is equal to the camera channel.

- Select a bit rate scale from "**Sound Alarm**" dropdown list. The maximum bit rate is 16000 bps (16Kbps).

### 1.10.6 Alarm send image to Center

The HVR Server can automatically send the alarm camera to Live Center / CMS and show the camera on the screen. Follow these steps:

**Step 1:** Set **network support Enable** in "System Configuration – Network Setup". For sensor alarm settings, please refer to Section 1.4.3 Alarm in and Relay out Setup.

**Step 2:** If you want to send motion alarm camera, please do further more set **Network Alarm Support Enable** in "PTZ Setup and Motion Alarm", please refer to Section 1.4.4.

**Step 3:** Configure Live Center to show up alarm camera without E-map. Disable the E-map function, Set **Network Alarm Support** as Auto Connect or a specific connection group. Live Center will auto monitor and respond to network alarm signals. Set Auto Connect means Live Center will check all servers (all IP address) in the **IP Address Alias List** in "IP Setup" tab. To set a specific connection group means Live Center only check that Operation Group's IP address in "Window Setup" tab. Refer to Section 2.3.2.

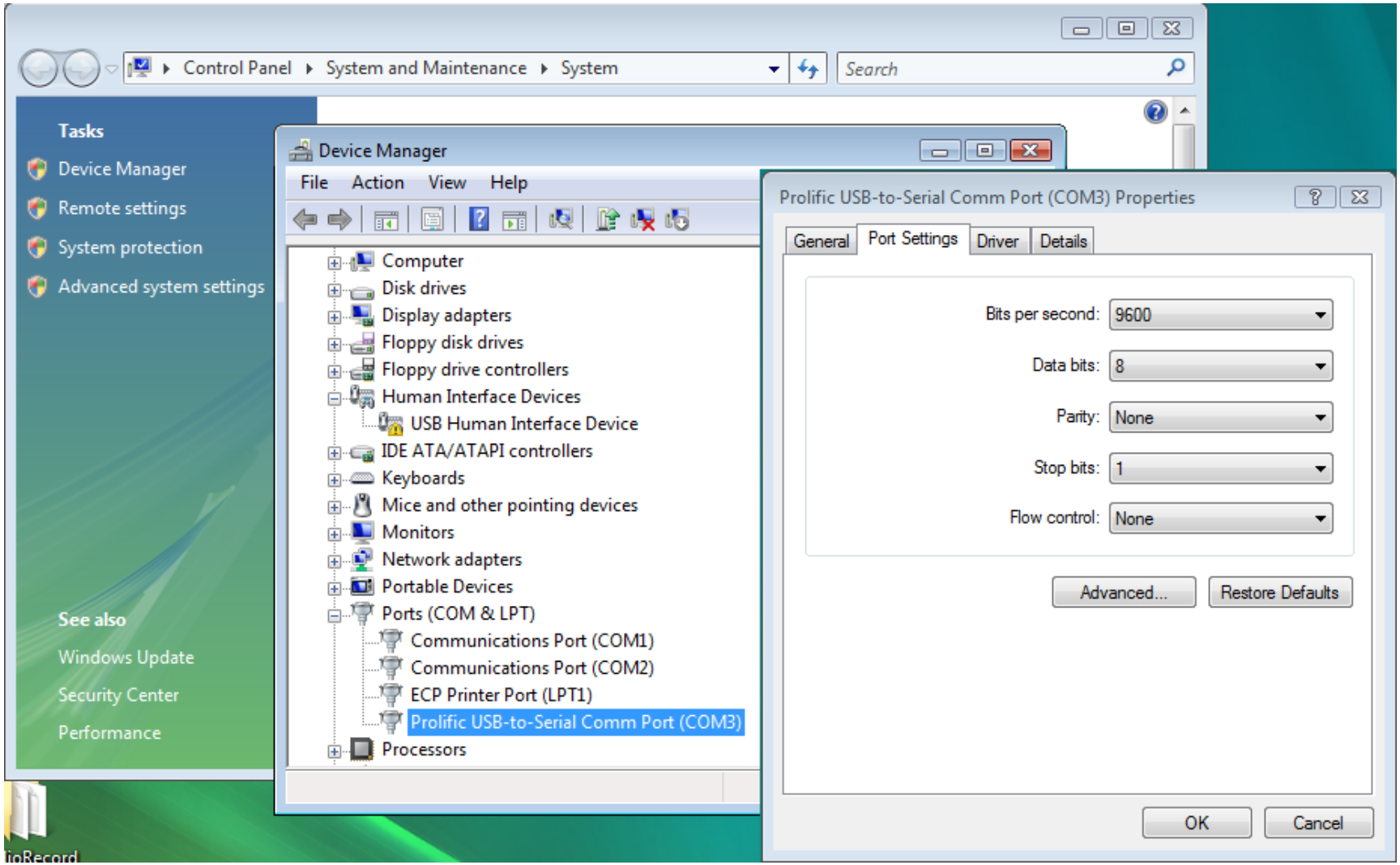
**Step 4:** Configure Live Center to show up alarm camera with E-map features. Please refer to Section 2.7.

### 1.10.7 Alarm send email

The HVR Server will automatically send email notifications to appointed receivers. Please refer to "**Email &SMS Setup**" in Section 1.4.5

### 1.10.8 Alarm Send Text Short Message (SMS)

This function needs a GSM MODEM in order to work. The GSM modem is a type of USB interface plug & play device. After installing the GSM modem driver successfully, please go to **Windows Device Manager** and check the COM port number connecting to the GSM modem (usually the system sets this as either COM3 or COM4). Set the HVR system short message COM port to match the COM port number in Device Manager. Set the SMS Device to SMS Text. Enter the receiver's mobile phone number and click the "**Test**" button to test your settings. Use the pictures below as a reference.




### 1.10.9 Alarm playing audio

You can record your customized voice and save it on the local disk drive. The HVR System saves the file's location and plays it when an alarm goes off. Every sensor and every camera can be linked to any wave file.

### 1.10.10 Alarm Popup Image

In the System Configuration interface, select

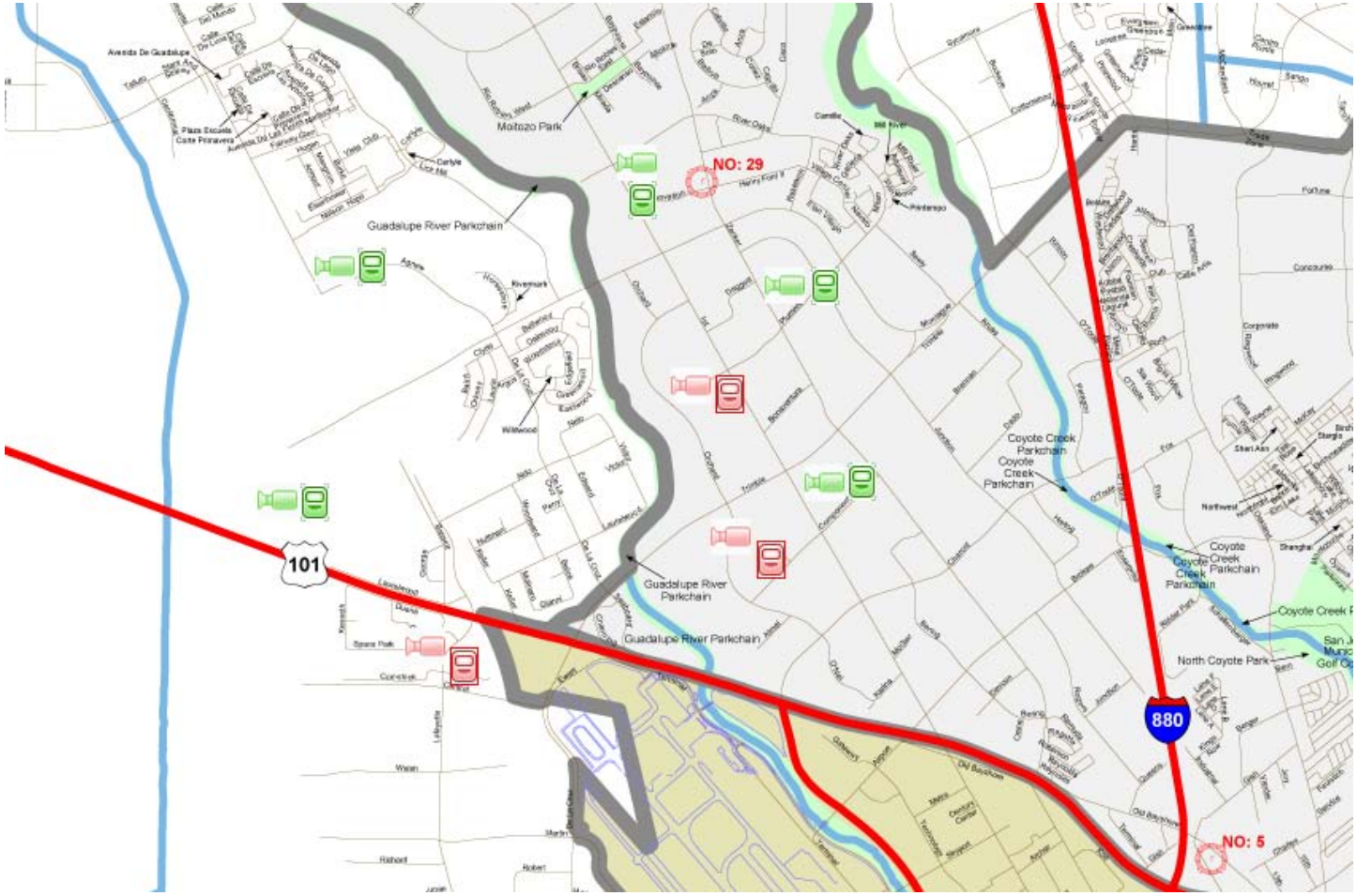
a time from the drop down menu. On the screen's right-click menu, select "**Start alarm popup**". When an alarm goes off, the alarm camera will pop up in full screen mode. Multiple alarm cameras will switch and popup according the interval you just adjusted.

### 1.10.11 Alarm Popup Electronic Map

Before using this function, please edit your customized electronic map and save it as a JPEG format on your local disk drive. In the System Configuration interface, set the "**Use Electronic Map**" feature

to "**Use**". On the main interface, you will want to press the button to bring up the default Electronic Map. Follow the following steps:

- Click the Setup button to activate setup mode.
- On the default map **right-click menu** (just right click anywhere on the map to bring up the right-click menu), select "**Change map**" to initiate a new map.
- On the map right-click menu, select "**Add camera**" to add a camera onto the map
- On the map right-click menu, select "**Add sensor**" to add a sensor onto the map
- On the map right-click menu, select "**Delete all annunciator**" to delete all the cameras and sensors.
- "**Auto Delete Alarm**" means the map will auto hide after the alarm has stopped.
- "**Auto display map when alarm**" will automatically display the map when an alarm goes off, but you must check this to enable this function.




## 1.11. PTZ Preset Operation

Before using this feature please go back to "**PTZ Setup**" in Section 1.4.4 to configure all your PTZ cameras correctly. The HVR Server supports 4 methods of PTZ control: 1) PC keyboard, 2) Analog PTZ keyboard connecting to COM port, 3) PC mouse operation on GUI PTZ panel, and 4) PC mouse operation on screen camera.

### 1.11.1 PC keyboard PTZ control

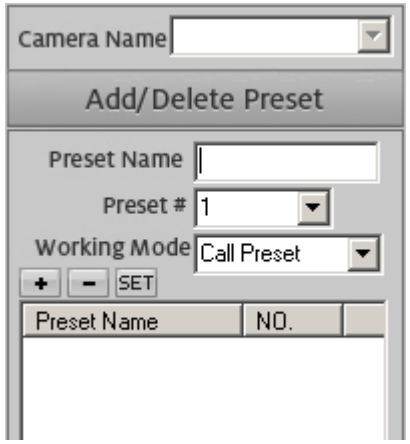
Please see Appendix A.

### 1.11.2 Analog PTZ keyboard connecting to COM port

Please refer to the operation manual or user's guide that came with the analog PTZ keyboard.

### 1.11.3 PC mouse operation on GUI PTZ Panel

On the main interface, press the "**PTZ**" button to open the PTZ panel. Move the mouse over the PTZ control button to show the PTZ button tips. Press the button and select "**Preset Setup**" to bring up the following interface:




**Save Preset steps**

- Move PTZ camera to your target position.
- Input a "**Preset Name**" to describe your target position
- Select a preset # that you want to use for your target position.
- Click "+" button to save it to the system. The preset name will show in the list and on the screen.

**Delete Preset**

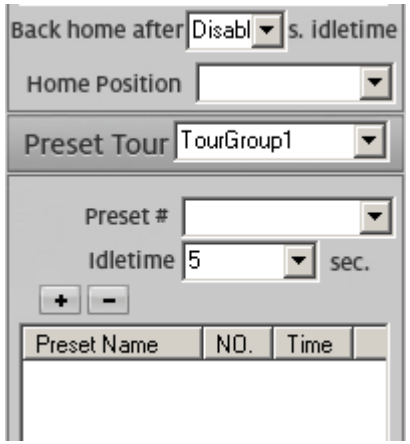
Select a preset name in the list and click the "-" button to delete it.

**Adjust Preset**

If a preset has been saved, however, you would like to adjust its position, just move the PTZ to its new position and click the "**Set**" button.

**Call Preset**

On the main interface, click the button to bring up the **PTZ operation** menu. Highlighting "**Preset Call**" will show a sub-menu of presets. Clicking the preset will call on it.



**Save Preset Tour steps**

- Select a Preset Tour group name from the dropdown list to save your settings.
- Select a preset name from the Preset # dropdown list.
- Select a time from the Idle Time dropdown list. Putting this setting at 5 sec. will delay the PTZ 5 seconds before it moves to its next position.
- Click the "+" button to add this preset into the Tour group. Repeat these steps to add more preset.

**Save Preset Home position**

Set a time from the "**Back home after xx sec. idle time**" dropdown list and select a preset name for the home position. The PTZ will automatically move to your home position if no operations have occurred during the time you have set.

**Run Preset Tour**

On the main interface, clicking the button will bring up the **PTZ operation** menu. Highlighting "**Preset Tour**" will show the sub-menu of the Tour group. Click the name to run it.

**Stop Preset Tour**

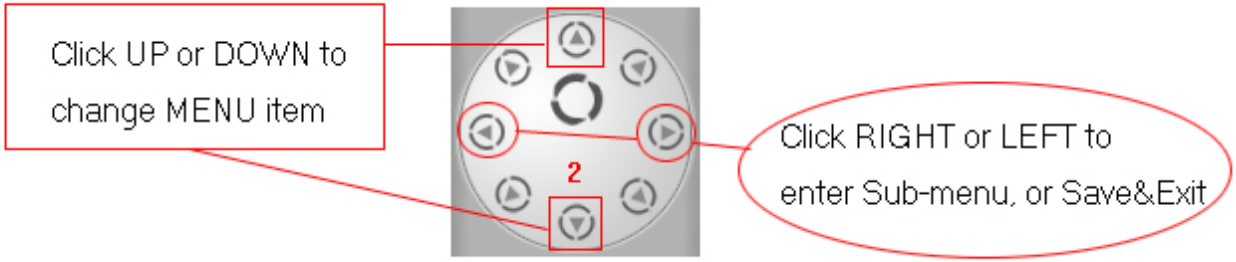
After the preset tour starts up, you will have to stop it manually by operating any of the directional buttons.

## Advance Menu Operation

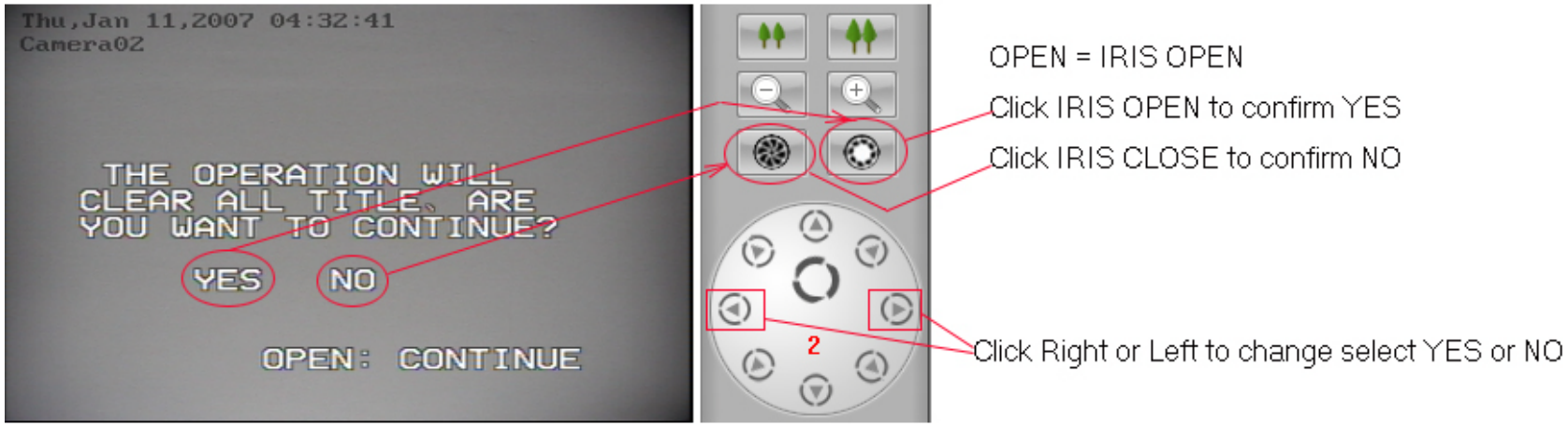
If you need change the system default settings of high speed dome, please refer to following steps. This operation only applies to the ILDVR Speed Dome.

- Double click preset #1 or call preset #64 from the **Preset Setup** interface to bring up the PTZ system's **MAIN MENU**.

- When the main menu shows on the screen, click "**TILT UP**" or "**TILT DOWN**" to move the cursor to your selection. Click "**PAN LEFT**" or "**PAN RIGHT**" to enter the sub-menu or modify current selection if it's lacking its sub-menu. Repeat these steps until you finish all modifications.



- Special buttons like "**CLOSE: EXIT**", "**OPEN: CONTINUE**", and "**PRESS OPEN TO ENTER**" are represented through the "**OPEN IRIS**" and "**CLOSE IRIS**" buttons to finish the selection or enter/exit the menu. See the example below for better clarification.


Thu,Jan 11,2007 04:32:41
Camera02
THE OPERATION WILL CLEAR ALL TITLE, ARE YOU WANT TO CONTINUE?
YES
NO
OPEN: CONTINUE
OPEN = IRIS OPEN
Click IRIS OPEN to confirm YES
Click IRIS CLOSE to confirm NO
Click Right or Left to change select YES or NO

**Function Icons on the screen when the option DISPLAY is set ON**

**Focus Control Mode:** When the camera is on focus near, the icon appears and when reach the nearest point, the icon appears. When on the focus far, the icon appears.

**Backlight Compensation:** when the monitoring object is dark or dim, you can open the backlight compensation according to actual need and the icon appears.

**White Balance:** when the image has color distort on the screen, you can set different modes to fix the problem. There are 6 options: ① Indoor Mode ② Outdoor Mode ③ Touch Mode ④Automatic Trace of White Balance ATW. ⑤ Manual WB-MAN. ⑥ Automatic Mode.

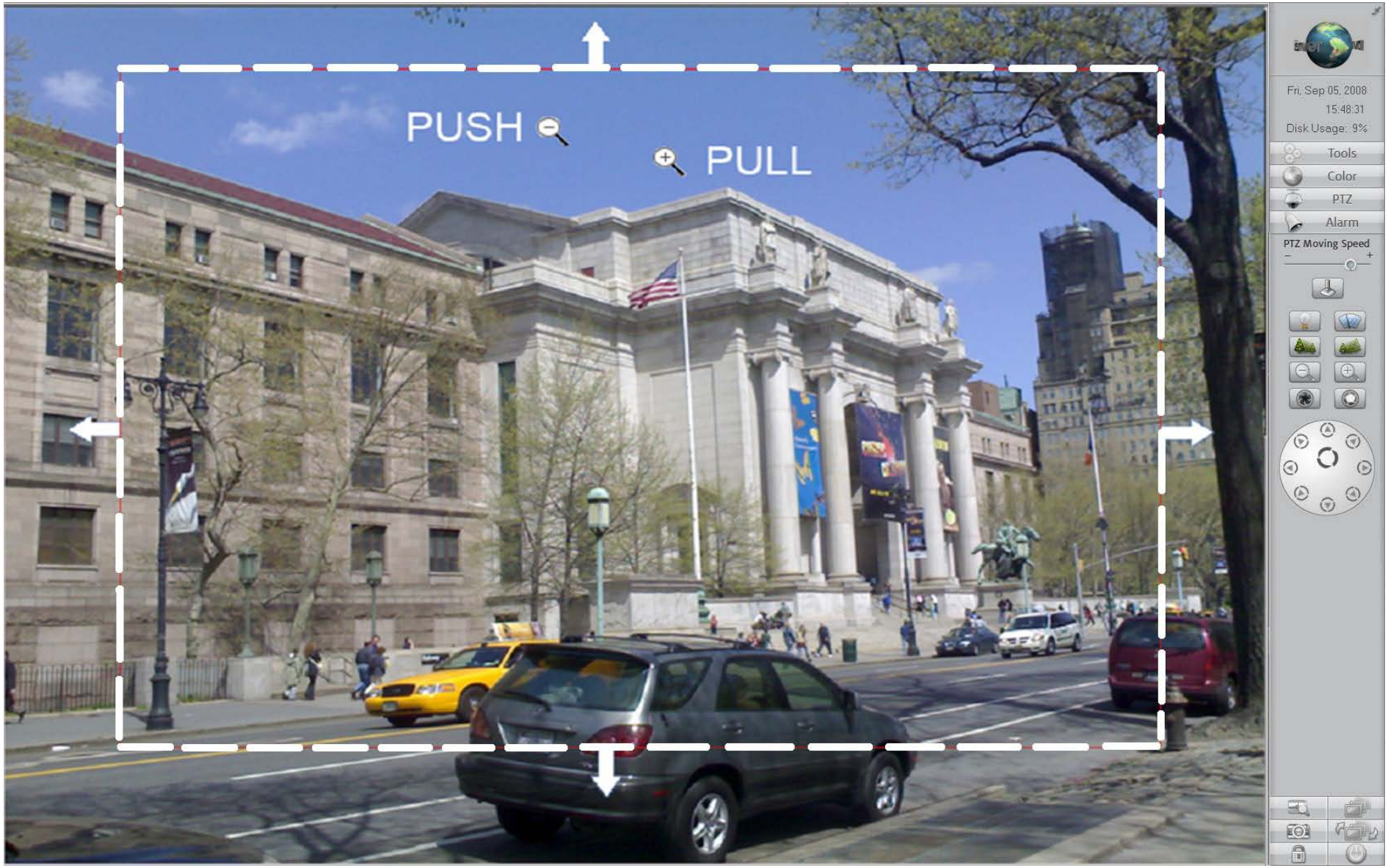
**Zoom Control:** When the camera is on zoom in or zoom out, the icon W T will show up on the screen.

**B&W:** When the camera is on black and white status "B&W" appears on the screen.

**Minimum illumination:** The camera works on zero illumination status (lower than 1.0Lux).

### 1.11.4 PC mouse operation on screen camera

Looking at the picture below, you can see how easy it is to control the PTZ by just using the screen. In the central area of the camera view, left clicking and holding down the mouse button gives you the opportunity of zooming in (by moving the mouse up on the picture) and zooming out (by moving the mouse down on the picture). Moving the mouse to all four sides and all four corners of the screen can change the direction of the PTZ in that direction.

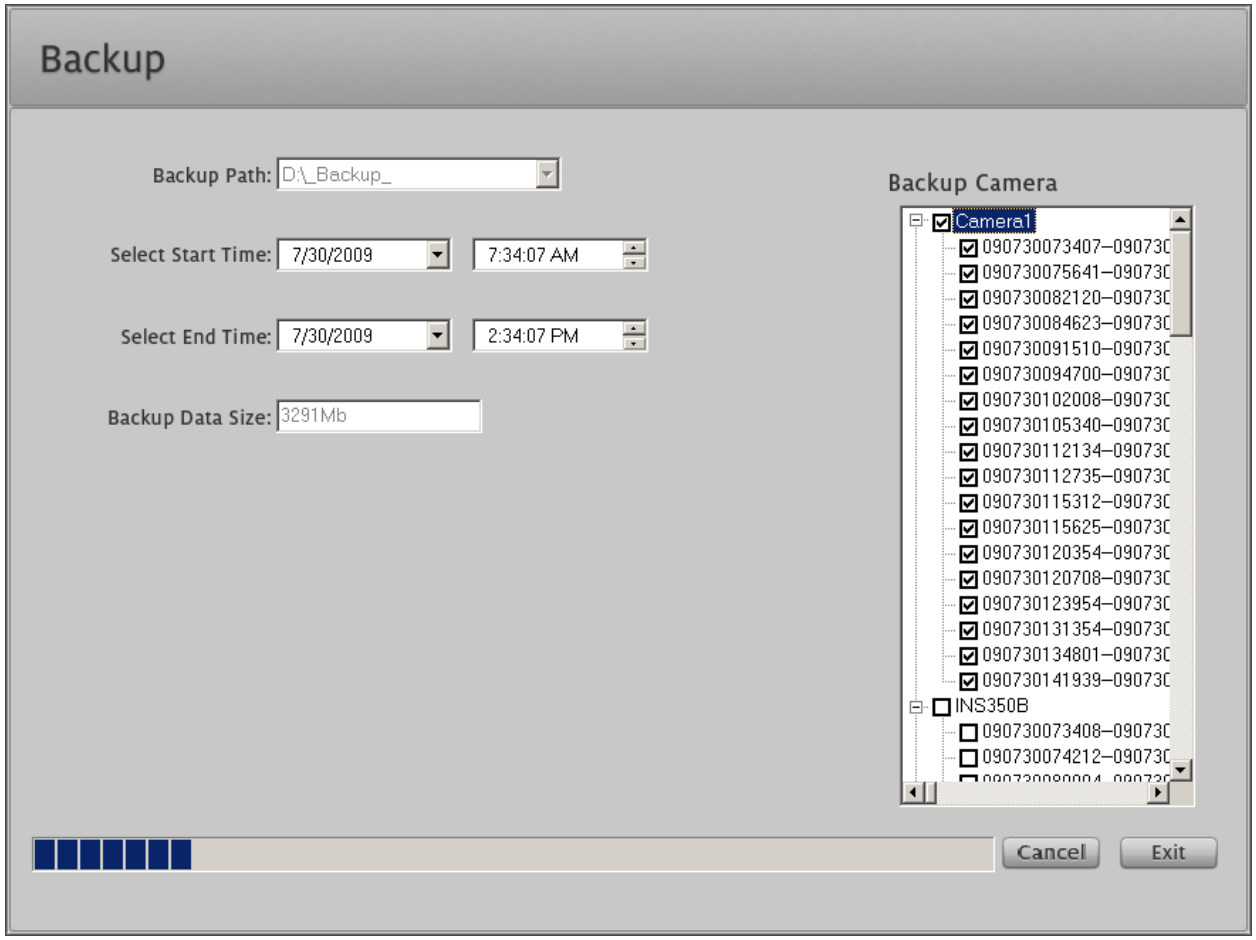



## 1.12. Data Backup

You have multiple choices to backup HVR record data. If you have high requirement for data security, please use Net_Backup software, it can backup multiple video servers automatically and simultaneously. It works just like data redundancy. If you want HVR server auto backup record data to a netwotk device, such as NAS, please run HVR Backup in the program folder. You must map a network drive for HVR Server to use. The following sections show you some manually backup operations.

### 1.12.1 Backup by Time

**Backup by Time** is used to filter and output the recorded video from the original saved Data Pack (256MB per file). You can use a USB device or use the default path (**D:_Backup_**) to backup your video file to. **Player.exe** is used to play back the backup video. It will automatically save to the Backup Path.

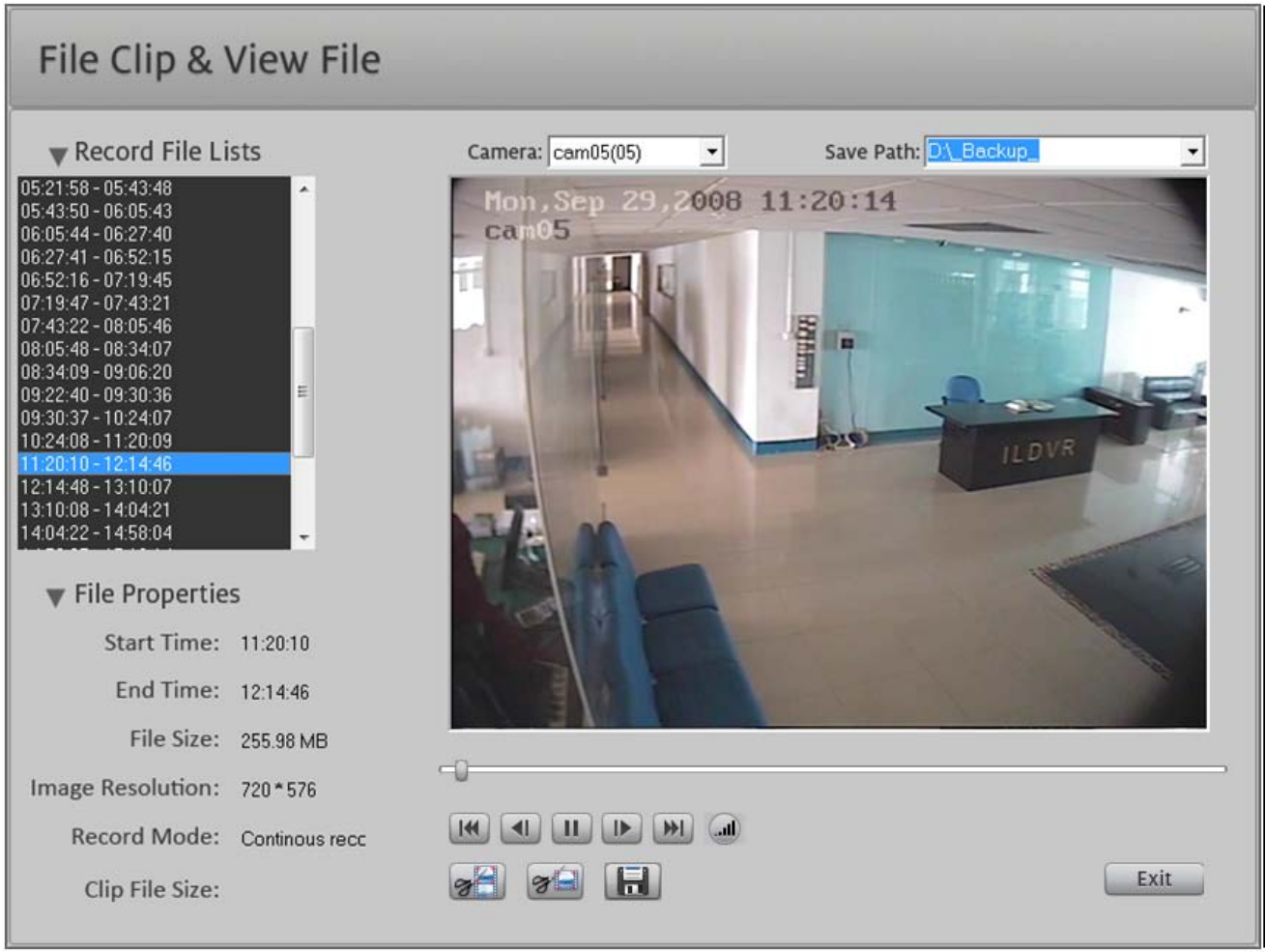



**Operations Steps:**

1. In the Local Search interface, press the button to enter your Backup interface.
2. Set the Backup Path.
3. Select the video start time.
4. Select the video end time.
5. Select the backup camera from your camera list. Click the ⊞ sign to expand the file list.
6. Click the "**Check**" button to display the target file size in the Backup Data Size box.
7. Click the "**Backup**" button to begin.

### 1.12.2 Video Clip

On the Local Search interface, press the button to enter the **File Clip & Backup** interface.




**Operation steps:**

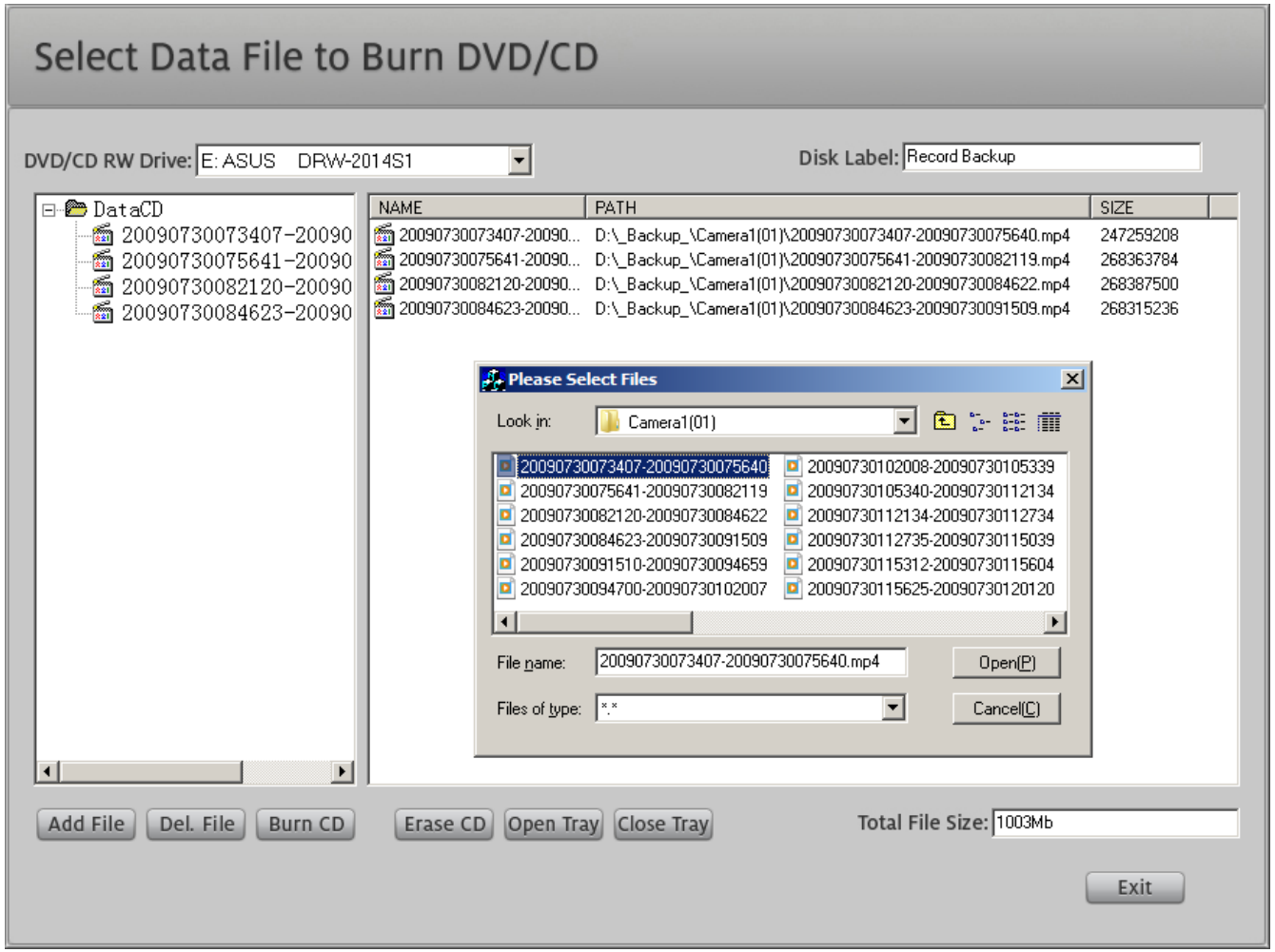
1. Set the clip file saving path.
2. Select the camera to search and clip
3. Double click a recorded file to play it from the Record File Lists.
4. Press the button to begin video clipping.
5. Press the button to end video clipping.
6. Press the button to save the clipped file.
7. Press the button to play the clipped video.
8. Click the button to delete the current viewing video clip.
9. Click the button to delete all the video clips.
10. Press the button to run the DVD/CD burning program. See next section.

Notice:

If you click the "**View**" button but there are nothing shows up in the "**Record File Lists**", please check the "**Save Path**" folder. The default folder is set to D:_Backup_**Camera##** (**##** indicates the actual camera number).

### 1.12.3 Backup to CD/DVD

On the **File Clip & Back** interface, press the button to run the **DVD/CD burning program**. This purpose of this function is to burn DVD and CD copies of the video that has been backed up by the two methods we just discussed earlier (see Section 1.10.1 and Section 1.10.2).

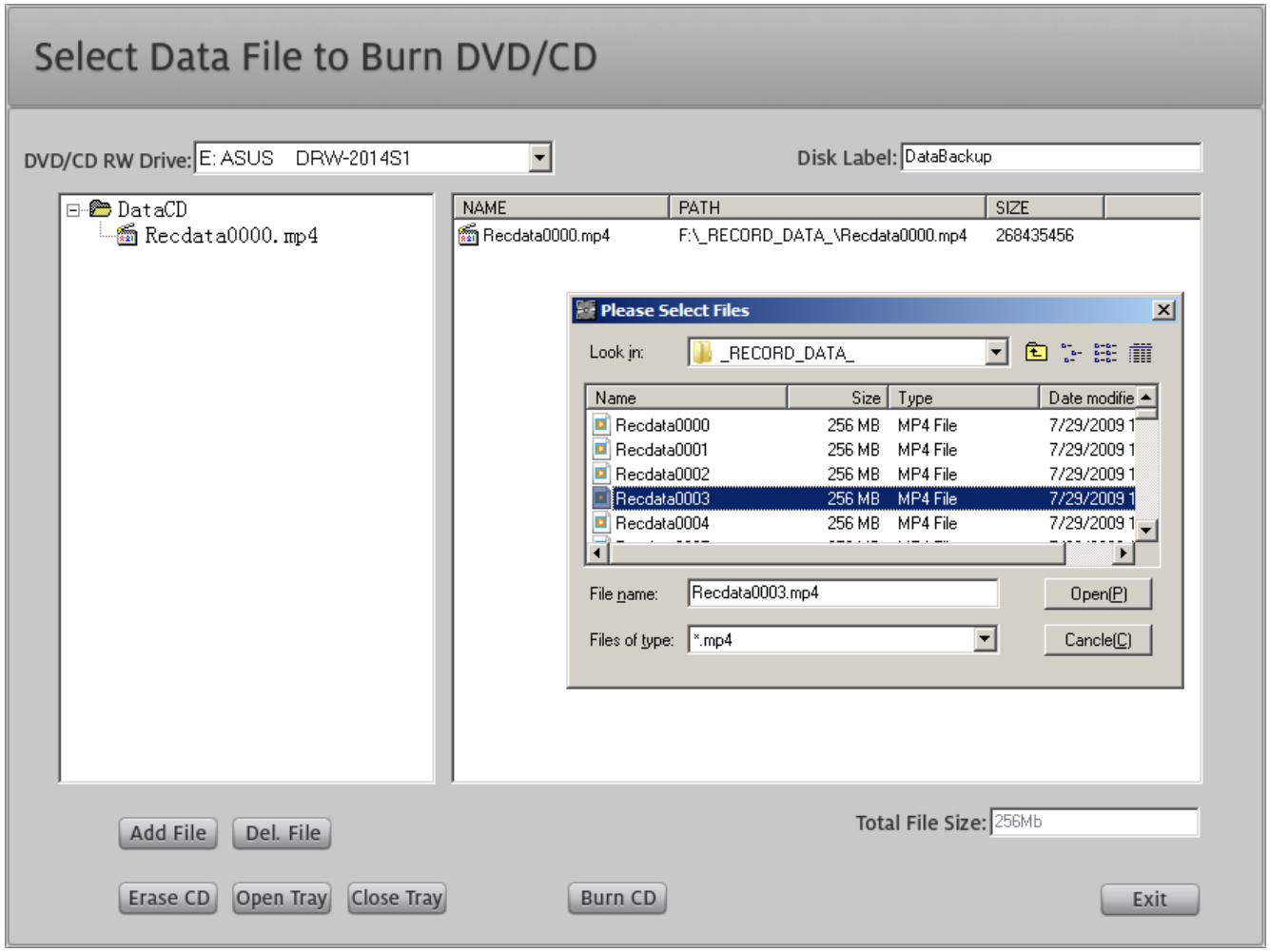



**Operation steps:**

1. Check the DVD/CD RW drive name to make sure that you have selected the right drive.
2. Label the DVD/CD that you will be backing up your files on.
3. Press the "**Add File**" button to import the video files that you would like to backup. You can press the "Del. File" button to change your selection.
4. Please check the "**Total File Size**" to make sure that your backup data is not exceeding the disk's free space.
5. Press the "**Burn**" button to begin burning. If the DVD/CD disk is re-writable, you can press the "Erase CD" button to erase the data that is on it.

### 1.12.4 Burn data CD/DVD

On the main interface, press the button to run **the DVD/CD burning program**. This program is designed to backup the video files of the original recordings.



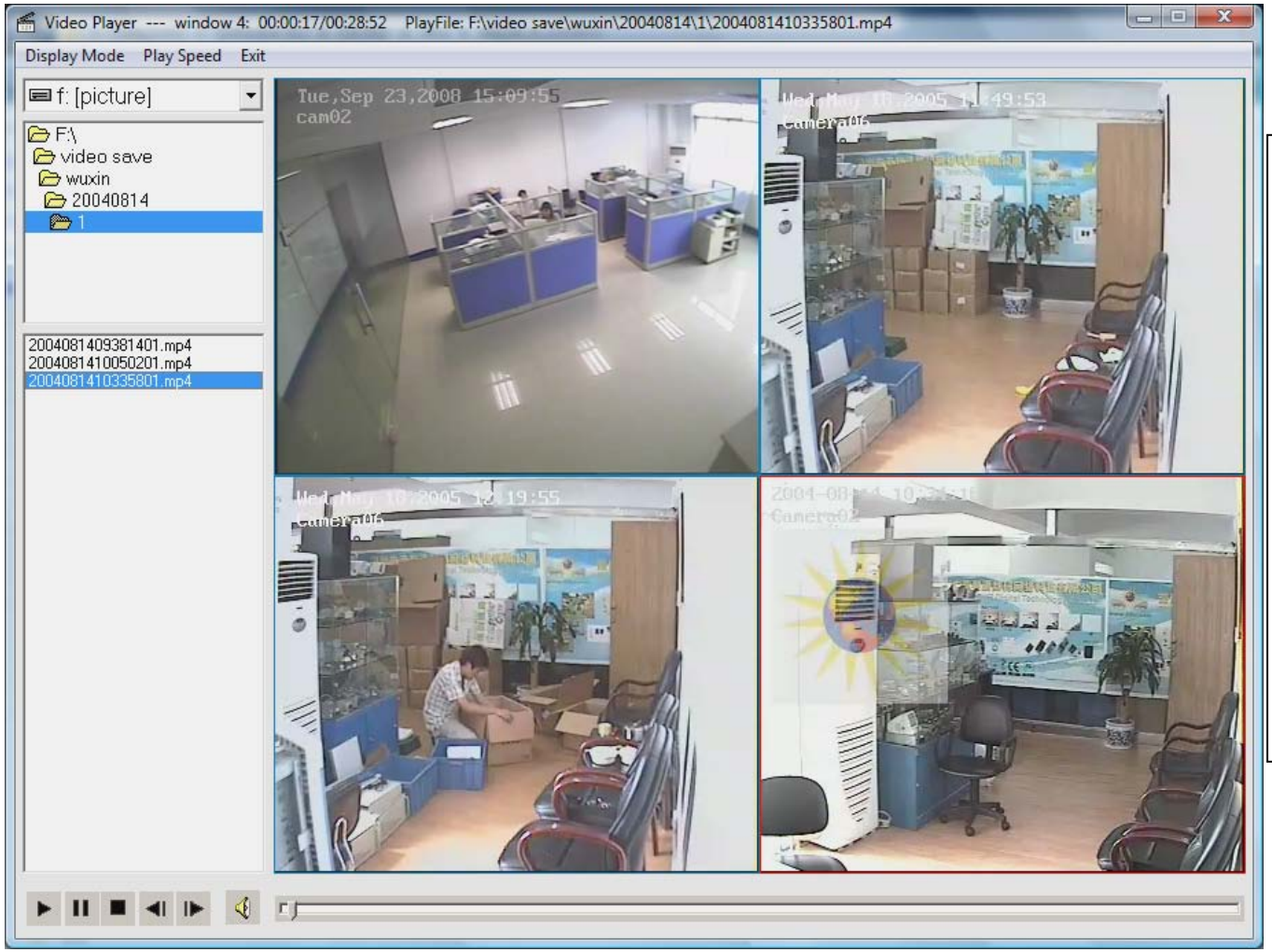

All the operation steps are exactly the same as Section 10.3.

**Important:**

Because of the difference in design, the DVD/CD that you burn from here will take longer to play because of its larger file size (256MB per file). A normal DVD/CD ROM needs about 3 to 5 minutes to cache one file to the system's memory. Please properly select your backup method according to your needs.

### 1.12.5 Viewing Backup Data

If you successfully burn a backup onto a DVD or CD, the software used to playback the recorded video will always be included in the video folder. Insert the backup disc into any PC CD ROM and "**Player.exe**" will auto-run. Once it starts, Video Player will display 4 sub-windows on your screen.




**Operation steps:**

**Step1:** Select the disk drive from the drive's dropdown list.

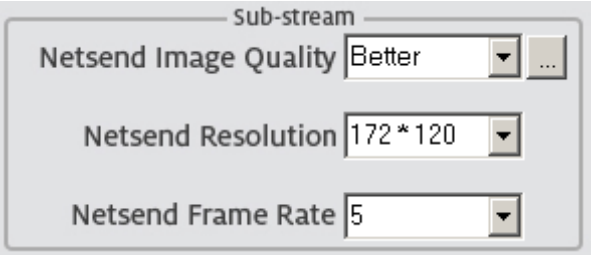
**Step2:** Locate the video file's saved path from the folder list. If you open a folder that contains any video files in it, all of the video files will list in the table below.

**Step3:** Click on a sub-window to activate it. Double click a video file to play it in this sub-window.

## 1.13 PDA / Cell Phone Remote View

The HVR system supports most mainstream mobile phone remote viewing. For **iPhone** and **Android** OS mobile phone, please download ILDVR mobile Viewer from online App Store. For **Blackberry, Windows Mobile, Symbian** and **Linux OS,** please directly login to HVR system using your mobile phone, you will be prompted to download and install the mobile client software automatically.

Please check your PDA/cell phone to see what type of video resolution it can support (usually it's either CIF or QCIF). Configure the "**Netsend Resolution**" on the Camera Setup interface to match your cell phone's resolution.




The mobile DVR uses sub-stream video transmission. In the "**Camera Setup**" interface, please set the camera's **Netsend Resolution to 172*120**. It must be different than the recorded image size. Set the Netsend Frame Rate to a number less than 5.

The HVR system uses port 5101 for the default mobile HVR TCP port number. You must configure your internet router (if you have one) to open this port for remote access. You can change the default TCP port number if necessary. Visit **http://YourSeverAddress/mobiledvr** or directly input your HVR server's IP address (domain name) in the web browser on your mobile device. **Please replace 'YourSeverAddress' with your own HVR server address**. If you changed the default web port 80 to other number, please add it behind the address with a colon, for example **http://YourSeverAddress:8080/mobiledvr**. After connecting HVR Server, the mobile phone will display following page:

Normal Mobile Client (Java):

MobileDvr.jad

BlackBerry Client (Java):

BlackBerry.jad

Please choose correct mobile client to download, save it in your mobile phone. The process may take up to several minutes depending on your internet speed. After finish download, the java program components will automatically install to your mobile phone. If not, please open it to run the installation. After that, a login dialog will pop up asking you to input your login ID and password in order to access the HVR server. For blackberry/iPhone, please run the program named Blackberry/iPhone (there is icon shown on screen). If your mobile phone has a good internet connection, waiting about 15 seconds will help you to achieve around a 3 to 5 fps viewing speed. If this doesn't

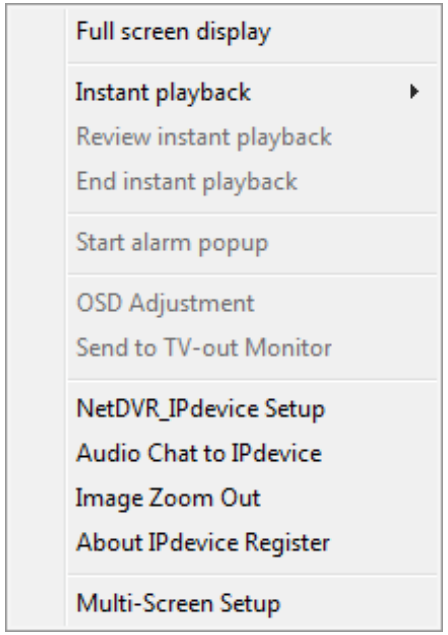
work for you, you can download/copy the 2 files **MobileDvr.jad and MobileDVR.jar** to any folder in your mobile phone. Run MobileDvr.jar to install the java program, which is inside the folder on your mobile device. You can find the 2 files in the HVR server installation folder (C:\Program Files\HVR Server\).

## 1.14 Miscellaneous Operation

### 1.14.1 Instant Playback

In the camera's **Right-click menu**, select "**Instant playback**" and choose one of the time options to play video from within the last few minutes. In the Right-click menu, select "**End playback**" to end it.

**Note: If the camera is not on the status of recording video at the moment when you do Instant Playback, the camera will show black screen.**




The **Right-click menu** might change on different type of camera.

**"Instant playback"** only displays video when the camera is recording.

**"Start alarm popup"** will be available after you set a switch time for the **Popup Alarm Camera** in **System Configuration**

**"OSD Adjustment"** is not available for IP Camera

**"Send to TV-out Monitor"** will be available after you install decode card in the DVR system

**"NetDVR_IPdevice Setup"** is available for all IP devices and NetDVR. Click to enter remote setup interface. See section 1.5.

**Audio Chat to IPdevice:** Initial VoIP talk to IP camera

**"Image Zoom Out"** is only available for IP Camera and NetDVR's camera

**"About IP device Register"** read the device serial number

**"Multi-Screen Setup"** only shows up when Windows detects dual monitors or more monitors. Click to enter IP Matrix (PC Decode) TV-Client setup interface. See section 1.4.8.

### 1.14.2 Audio spy

Audio spy lets you locally monitor the audio attached to every camera. This function needs a sound card and speaker to work. Please refer to Section 1.4.2 to configure

Audio Record.

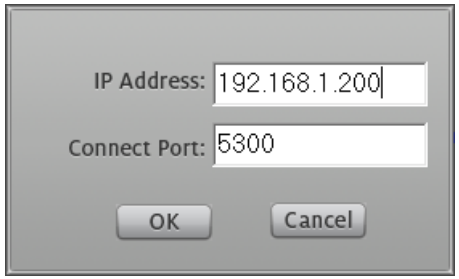
Set the stream type to "**Video+Audio**".

Refer to Section 1.4.1 to configure Audio Monitor.

Set audio spy to "**Enable**".

### 1.14.3 Remote Talk

The Remote Talk function needs a sound card, speakers, and a microphone to work. On the main interface, click the button to enter **Remote Talk** mode. Enter the remote IP address and TCP port number and click "**Ok**" when finished. You can also choose "Audio Chat to IPdevice"from right-click menu.



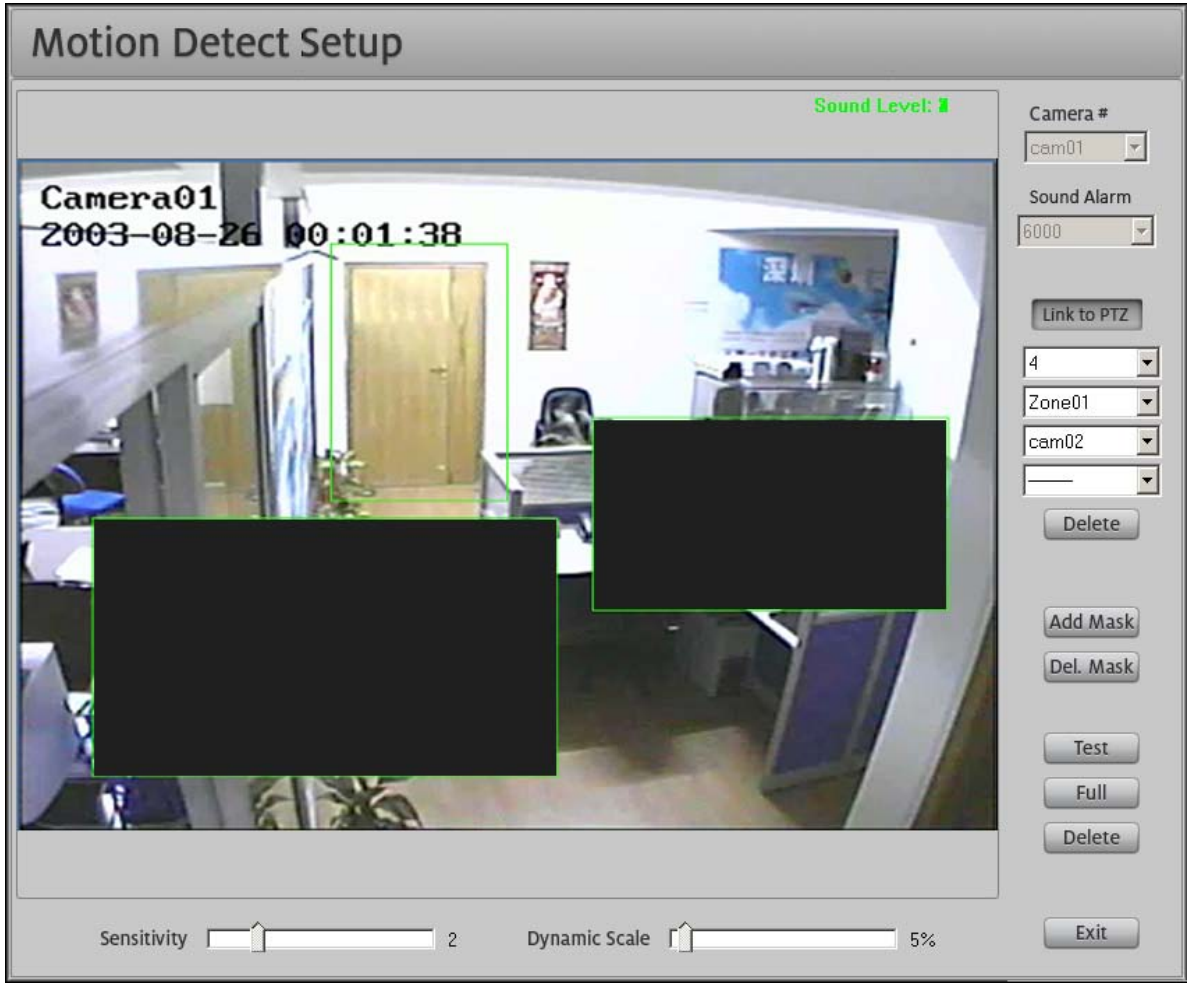
### 1.14.4 Adjust OSD Position

In the camera's **Right-click menu**, select "**OSD Adjustment**" to bring up the OSD Position Setup interface so that you may drag & drop the OSD overlay text onto the target position on the camera picture.

If the OSD text does not show clearly, please set the OSD Gray Scale to "**Auto**" to make the OSD overlay text automatically adapt to the picture's background.

### 1.14.5 Mask Private Area

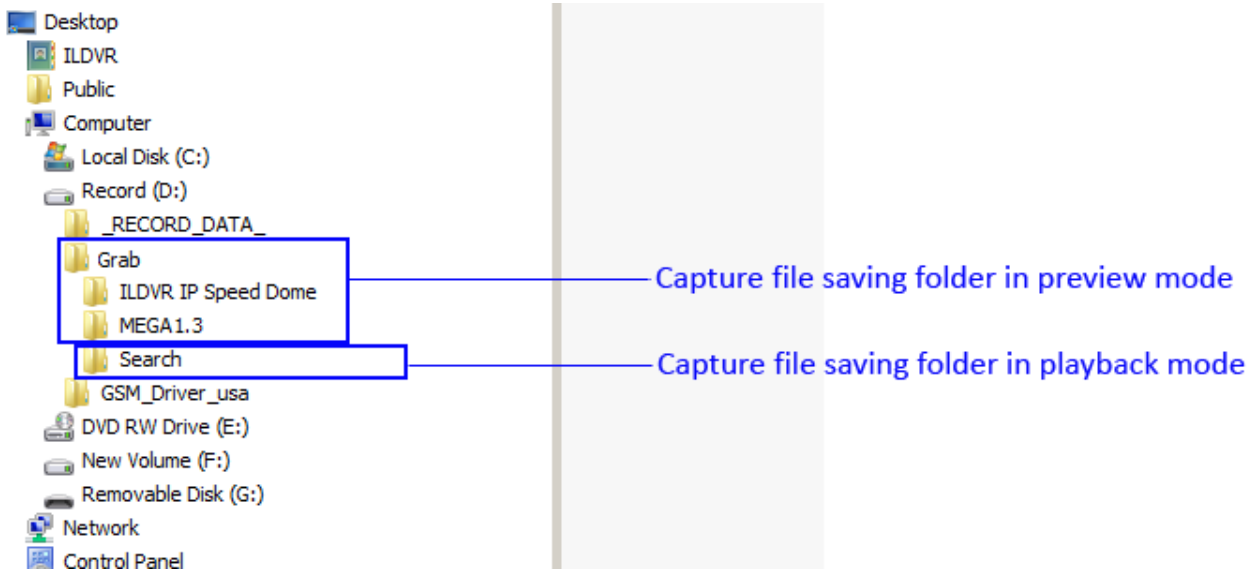
This setting is similar to the **Motion Detect** setting. On the main interface, press the button to display the **Motion Detect Setup** interface. Click the "**Add Mask**" button and draw a rectangular area in the camera by holding down the left mouse button and moving it around. This area will turn black immediately after you do this. You can set a maximum of 12 mask zones pre each camera. Clicking the "**Del. Mask**" button will delete all mask zones.



### 1.14.6 Capture Picture

**Capture image in preview mode**

When you press the button on the main interface, the HVR system will automatically capture one picture of the active camera and save it in the folder that you assigned in the System Configuration interface's "**Grab Picture Save Path**". If you didn't set a path, the HVR will use the default path D:\Grab**camera_name**. The **camera_name** is the alias you entered in the **Camera Setup** interface (See following illustration). The HVR only grabs the active camera picture, so if you wanted to take a snap shot of the screen all you would have to do to is 1) click the target camera and 2) click the capture button.




**Capture image in playback mode**

In playback mode, click the button to grab a picture from the active searching camera and save it into your saved pictures folder (default path) D:\Grab\Search**filename**. The **filename** is the name you entered in the dialog box. If you don't name it, the HVR will use the camera name or channel number plus the current time for the file name. See following illustration.

### 1.14.7 Print Picture

You can print the captured image if the HVR system has a printer installed. In the Search interface, press the button to bring up the **Windows Open** dialog interface. Then you must locate and open the picture saved in the above section.

### 1.14.8 Manually Control Relay out

This function needs an alarm controller in order to work.

Open the alarm control panel on the main interface. Once you're on the main interface, click the D/O port number icon to manually trigger the relay out port. This function can be used to integrate other devices to turn on lights, open doors, and so on.

### 1.14.9 System Log

**Write on duty log**

On the main interface, press the button to display the "**On Duty Log**" interface. The administrator/operator will write his work report/even messages in here. Click the "**Finish**" button to save your work log. All messages you create and save will be stored in the system log.

**View system log**

On the main interface, press the button to display the "**System Log List"** interface. Here you can search archived system logs or backup system logs within a longer time frame, compared to the default settings of 30 days for Log Archiving.

It is also very important to export the system log to a text file and send it to ILDVR for technical support if the HVR system is running abnormal.

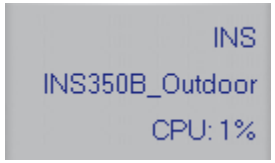
# Chapter 2 Live Center

## 2.1 Program Installation and Main Interface

To install Live Center from path: **[CD]…\Software & Drivers\LiveCenter_v10.x\LiveCenter_v10.x.msi**, double click the EXE file to initial the setup. Disk Manager will automatically run when the installation finish. Please refer to section 1.2.5 to build DVR file system. After installing the Live Center software, double click the shortcut icon on your desktop to run Live Center program. The operation buttons and control panels are similar to those of the HVR Server, except for the Group panel that the HVR Server does not have. The Connection list panel has different content from that of HVR Server.

**Tips:** To run Live Center automatically when Windows starts up, please drag & drop the desktop icon for Live Center into the Windows Startup folder.

**Information Board**




| |
|---|
| Video Server name of the current active sub-window connection |
| Camera name of the current active sub-window |
| CPU usage (percentage). When CPU usage exceeds 80% the E-map will stop to popup more alarm camera. |

**Group Panel**

On the main interface Group panel, the camera number (sub-window) icon has 3 different status colors:

**Grey color** indicates no connection and the system is not recording.

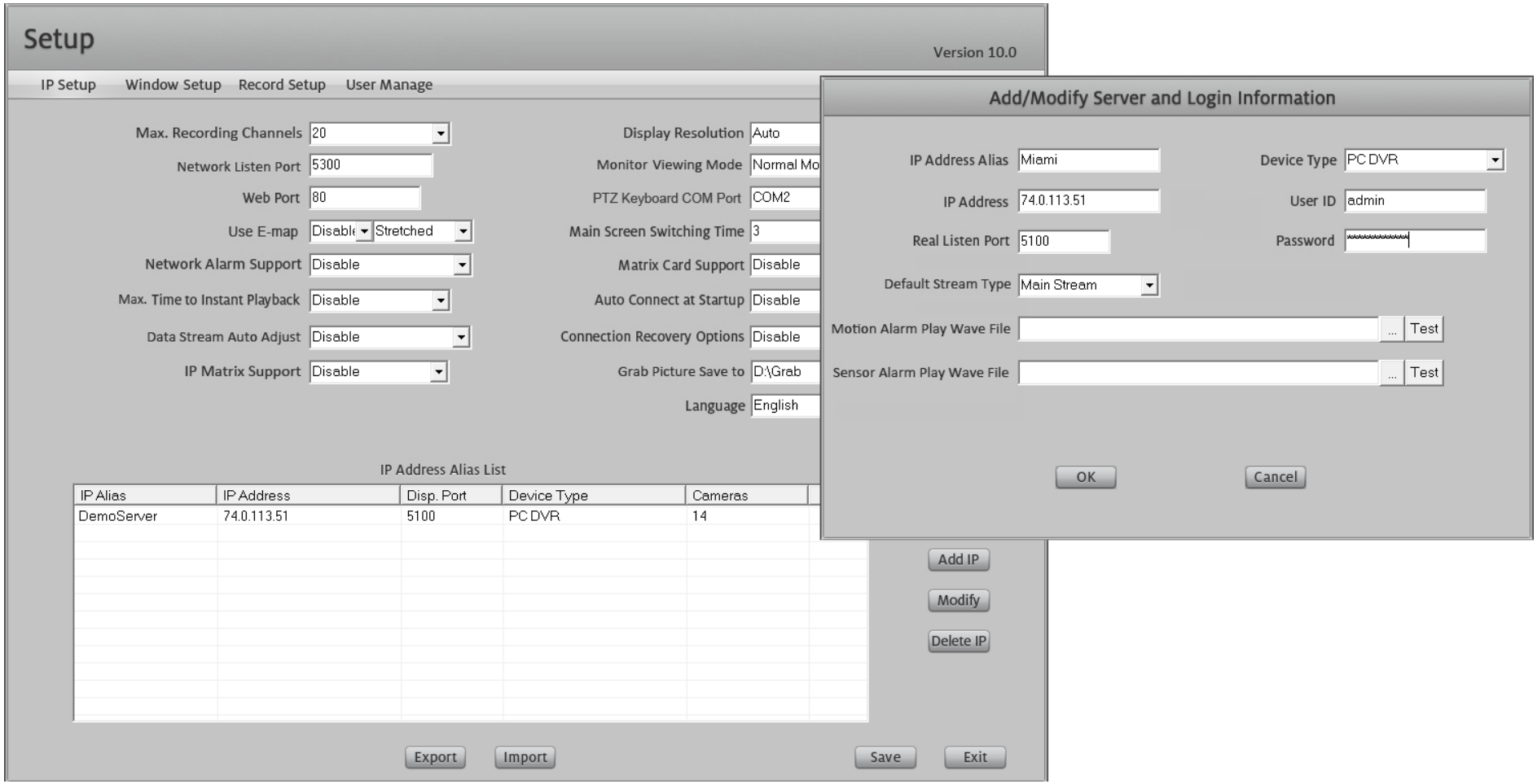
**Light blue** color indicates the connection camera is on the status of alarming.

**Dark color** indicates the connection is OK.

## 2.2 Live Center Local Setup

### 2.2.1 IP Setup

On the main interface → Tools panel, press the Setup button to enter the Local Setup interface. The default tab is the "**IP Setup**" page. When running Live Center for the first time, the IP address list is going to be empty. Press the "**Add IP**" button to enter the "**Add/Modify Server and Login Information**" interface. Select the correct device type for the remote video server. Give it a name (alias) to describe the video server, enter its IP address, TCP port, login ID and password. All items must match the user ID settings in the video server's user management page. Click on the "**OK**" button to save your settings. Repeat the same steps to add more video severs into the IP address alias list. Click on "**Modify**" to change an existing IP. Click on "**Delete IP**" to terminate an existing IP.

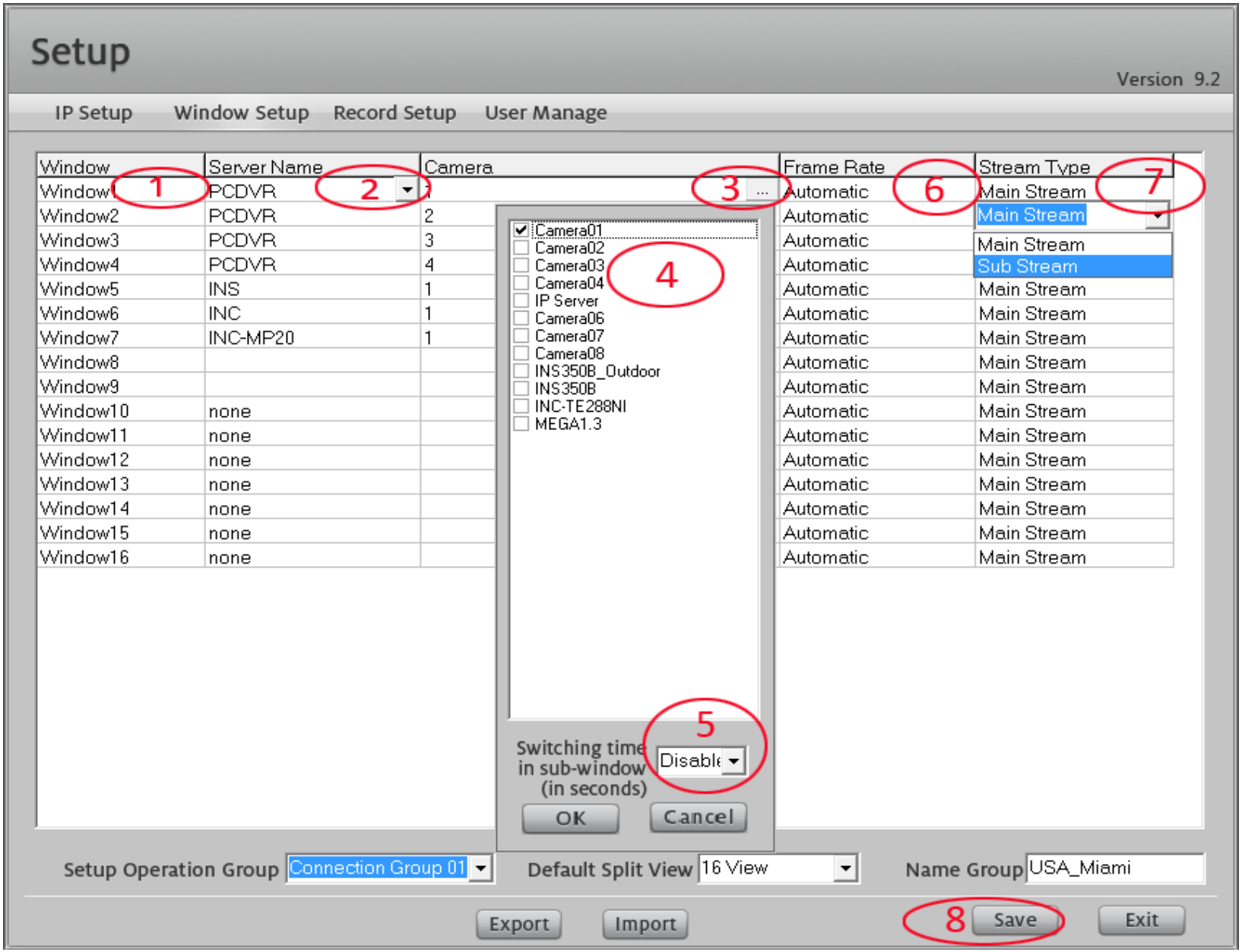


| Items | Description |
|---|---|
| Max. Recording Channels | Configure the number of recording channels (cameras). |
| Network Listen Port | This is alarm video and remote chat TCP port. Default port number is 5300. |
| Web Port | TCP/IP port number used for the web client (IE browser). |
| Use E-map | Enable or disable the E-map function (section 2.9). |
| Network Alarm Support | Enable or disable auto-connect & display the alarm camera when receive alarm message from remote server. Set **"Auto Connect"** means Live Center will check all servers (all IP addresses) in the **IP Address Alias List** in "IP Setup" tab. To set a specific connection group means Live Center only check that Operation Group's IP address in "Window Setup" tab. |
| Max. Time to Instant Playback | Instant playback uses up a great deal of systems resources, especially the memory resources. You should check your PC CPU usage and memory usage in task manager to determine the proper configuration. |
| Data Stream Auto Adjust | Set this option Enable to get high quality video of main stream when the camera alarm |
| IP Matrix Support | Set Enable to support IP Matrix TV-Client. Install IP matrix in same PC can support 4 screen output, refer to section 1.4.9. |
| Display Resolution | Configure Live Center's main interface display resolution. |
| Monitor Viewing Mode | Set this option according your monitor type. |
| PTZ Keyboard COM Port | Set DVR keyboard 2988 COM port |
| Main Screen Switching Time | Configure the Main-screen auto-switch interval time (in seconds). |
| Matrix Card Support | Setup or disable the decode card work mode (D1/CIF). |
| Auto-connect at Startup | Configure an auto-connection group when Live Center starts up. |
| Connection Recovery Option | Configure the system to wait a certain time before trying to recover a connection if the network has been disconnected. |
| Grab Picture Save to | Set grabbed picture saving path |
| Language | Select a language (only available in the multiple language version). |

**Tips:**

- If the remote server is not available or your configurations are wrong, the information that you've entered cannot be saved.
- You can "**Export**" system settings for backup and/or can also "**Import**" your system settings from a backup file when upgrading the software.

### 2.2.2 Window Setup


Setup
Version 9.2
IP Setup
Window Setup
Record Setup
User Manage
Window
Server Name
Camera
Frame Rate
Stream Type
Window1
PCDVR
Window2
PCDVR
2
Window3
PCDVR
3
Window4
PCDVR
4
Window5
INS
1
Window6
INC
1
Window7
INC-MP20
1
Window8
Window9
Window10
none
Window11
none
Window12
none
Window13
none
Window14
none
Window15
none
Window16
none
Automatic
Main Stream
Sub Stream
Camera01
Camera02
Camera03
Camera04
IP Server
Camera06
Camera07
Camera08
INS350B_Outdoor
INS350B
INC-TE288NI
MEGA1.3
Switching time in sub-window (in seconds)
Disable
OK
Cancel
Setup Operation Group
Connection Group 01
Default Split View
16 View
Name Group
USA_Miami
Export
Import
Save
Exit
1
2
3
4
5
6
7
8

On the "**Window Setup**" interface, you must configure every sub-window's connection one by one. If you assign multiple cameras to one sub-window, please set a switch time from the drop-down list that reads "**Switching time in sub-window**". If you do not set a switch time, the cameras will not be shown properly (it will only display the first camera). On the main interface, open the "**Connection**" panel and press the button to turn on/off the IP Matrix switching view.

**Important: For Frame Rate setting, only the HVR supports all 3 types of frame rates. The NetDVR and IP Server/Camera do not support 1 fps frame rate because this feature is not supported by the embedded OS.**

### 2.2.3 Record Setup

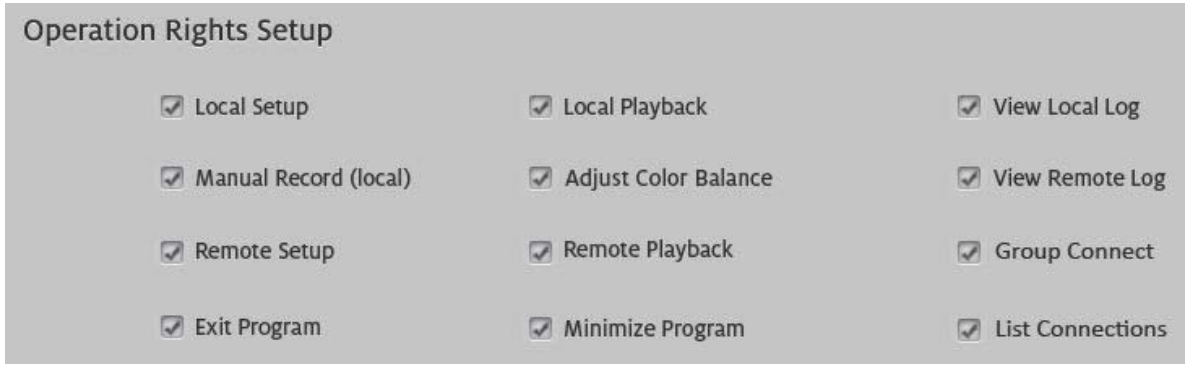
On the "**Record Setup**" interface you can easily customize every sub-window's record timetable. All operations are similar to the HVR Server except the Continuous & Motion Record that Live Center does not support.

**Important:**
**To setup Motion Detect record or Sensor/Alarm-in record in Live Center, not only should you do to setup record schedule in Live Center, but you should also setup the camera to send an alarm signal to the network (Live Center or CMS). For alarm cameras from DVR card please refer to HVR Server section 1.4.3 and 1.4.4. For alarm cameras from IP device please refer to section 1.5.**

### 2.2.4 User Management

Operation steps:

- Set "**Local Password Support**" to Enable
- Press the "**Add User**" button and enter a new User ID and password/Confirm password.
- Select a user type from the Administration Group.
- Click the check box to enable/disable the current user's operation rights in "**Operation Rights Setup**".
- Exit "**Setup**" interface will auto save all of your settings.
- If you want to delete a username, just select the User ID and click the button.




**Note:** This is Live Center's local user management interface. The user's rights here are different from the user's rights on the server. You can not configure network login parameter through here.

## 2.3 Connect to Video Server

### 2.3.1 Auto connect at start up

Select a connection group from the dropdown list. When Live Center starts up, this group of cameras will automatically show on your screen. Refer to Section 2.2 to set and save groups.

### 2.3.2 Auto connect alarm camera

This function is only available when you don't use the E-map utility and close "**Auto-connect at Startup**" and avoid connecting any of your cameras manually. Set this option to "**Auto Connect**" Live Center will check all servers (all IP addresses) in the **IP Address Alias List** in "IP Setup" tab. All alarm cameras on the video servers will pop up sequentially on your screen automatically. If the alarm camera is already connected and showing on screen, the connection will not reduplicate. This feature is useful if you are managing more than 64 cameras. Set this option to a "**Connection Group**" so that only the cameras on this specific group show on your screen automatically. The alarm camera in other groups will be ignored.

**For your attention:** Live Center set default split view as auto adjust for alarm camera, that means when the alarm camera number changes, the split view also changes. To turn off / turn on this feature, please choose "Views Manual Adjust" from right-click menu, refer to section 2.11.1.

### 2.3.3 Manually connect camera from Connection Group

On the main interface press the "**Group**" button to open the connection panel.

-

Select a group to connect to the camera manually.
-

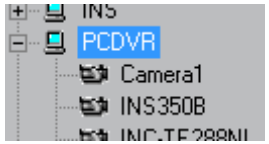
Click on "**Con. All**" to display all the cameras in the group. Clicking "**Dis. All**" terminates all cameras.
-

Click the camera number icon to connect each camera one by one. Click the icon again to disconnect it. Icon color will change after the camera connects successfully.
- Press the button to turn on the IP Matrix switch view. Click it again to turn it off.

### 2.3.4 Manually connect camera from Connection List

On the main interface press the "**Connection**" button to open the connection list panel.

Click "**Con. All**" to display all the cameras in its sequence order. Click "**Dis. All**" to terminate all camera views.



Click the sign "+" to expand the connection list. Double click a camera to show it in the current active window. Double click again to terminate it.

## 2.4 Remote Manage Video Server

From Tools panel, press the Remote Setup button to bring up the Connect Server selection dialog interface.

Select the remote server's alias from the drop down list. Click "**OK**" to enter the remote server's setup interface.

If you login to HVR, all setup interfaces and operations are exactly the same as the HVR Server. Please refer to the Section 1.4. If you login to NetDVR or IP devices, all setup interfaces and operations are still the same as login from HVR Server. Please refer to the Section 1.5.

**Important: In order to use Remote Setup, you need administration user rights. Please make sure that you log into the remote server with correct user ID. Some configuration parameters are not available in remote setup because changing those settings might cause HVR system malfunction.**

## 2.5 Local Search (Playback)

On the main interface, press the button to enter **Playback mode**. All buttons and operation are exactly the same as those on the HVR local search. Please see Section 1.7 for more details.

## 2.6 Remote Search (Playback)

On the Tools panel, press the button to bring up the **Connect Server** dialog interface.

Select a HVR server from the drop down list. Click "**OK**" if you would like to enter the remote server playback interface.

If you login to HVR Server, all the operational steps are similar to the steps of local search except for the "**Sub-stream**" search. If you setup enable Sub-stream Record in the HVR server, you have to click the "**Sub-stream**" button to playback the sub-stream video. This feature is useful for low bandwidth network connections.

If you login to NetDVR or IP Camera, all buttons and operation are still similar to the local search except for the four missing buttons for Sub-stream Search, POS Search, ACU Search and Object Search. These features are only supported on the HVR.

For your attention, the icon color in remote search of NetDVR and IP device has some changes from those in HVR remote search. The calendar in IP device remote search is a little bit different from the calendar in HVR remote search. Here it cannot show the first recording date. It shows the current date as green color and highlight all days before current date. Another difference is the time bar color. It doesn't show 4 colors for different type of recording data like the HVR remote search. It always shows red color for all kinds of record mode despite of **Motion Record**, **Sensor Record** or **Manual Record**. This is because the low speed embedded system takes more time to search whole disk drive than Live Center can wait for response.

## 2.7 Alarm Management and E-map Operation

### 2.7.1 Introduction of E-map

The E-map client is designed to give you a way to visually manage your alarm signals in a convenient manner. The Live Center E-map function uses 2 levels of electronic maps to manage all devices, including HVR servers, sensors and cameras. The first level map (**main-map**) is used to display the video server devices. These devices include PC-DVR (HVR), NetDVR, IP video servers, IP cameras, IP speed domes, etc. The second level map (**sub-map**) is used to display sensors and analog cameras that connect to PC-DVRs, NetDVRs and IP video servers.

The main-map supports BMP image format. Resolution size can be no less than **1024*768** pixels and no bigger than **4096*3072** pixels. The sub-map supports BMP image format as well, with resolution size being no less than **160*120** and no larger than **1024*768** pixels. Before using the E-map feature, please design and prepare your own E-maps according your surveillance system camera layout. Save it in the local HDD for future usage.

When an alarm is triggered, the alarm device's icon will flash on the maps. The meaning to each icon is listed below.

| Device type | Disarmed status (green) | Armed status (yellow) | Alarm status (red) | Off-line status |
|---|---|---|---|---|
| Camera | | | | |
| NetDVR/IP video server | | | | |
| PC-DVR | | | | |
| Sensor | | | | |

### 2.7.2 E-map Setup

To use the E-map function please set the option to "**Enable**" in the local Setup interface.

If you're using only one monitor, please select the "**Stretched**" display mode. If you'll be using two monitors, please select **Extended** or **Stretched** according your computer display settings. After you configure the E-map Enable/Disable setting, Live Center will need to reboot in order to initialize the dual-monitor function. After the reboot is complete, a diminution map

will show on the upper right corner of the main interface. The main map will show on the second monitor. Refer to the next diagram to setup E-map before trying to use it.

The E-map setup steps:

**Step1:** Right click anywhere on the main-map, select "**Map setup**" from the right-click menu to enter E-map setup mode.

**Step2:** Right click anywhere on the main-map, select "**Change main map**" from the right-click menu. Locate your new map path from the Windows standard Open File interface to install new map. If you do not change the main map, the sample map will be used instead.

**Step3:** Right click anywhere on the main-map, select "**Add Device**" from right-click menu to bring up the "**Add Server**" interface.

**Step4:** Select a video server device name from the dropdown list. The dropdown list has all server names listed in the "**IP Setup**" interface. Please refer to Section 2.1.

**Step5:** Click the button to change the sub-map for the above video server like we did in step 2.

**Step6:** Choose the correct device type for the above mentioned video server, clicking the **OK** button when finished. A **green color** icon will show on the main map. Drag and drop it to move its position. If you add an IP camera, the camera icon will be put directly on the main map. You don't need to do the next step because the IP camera does not need a sub-map.

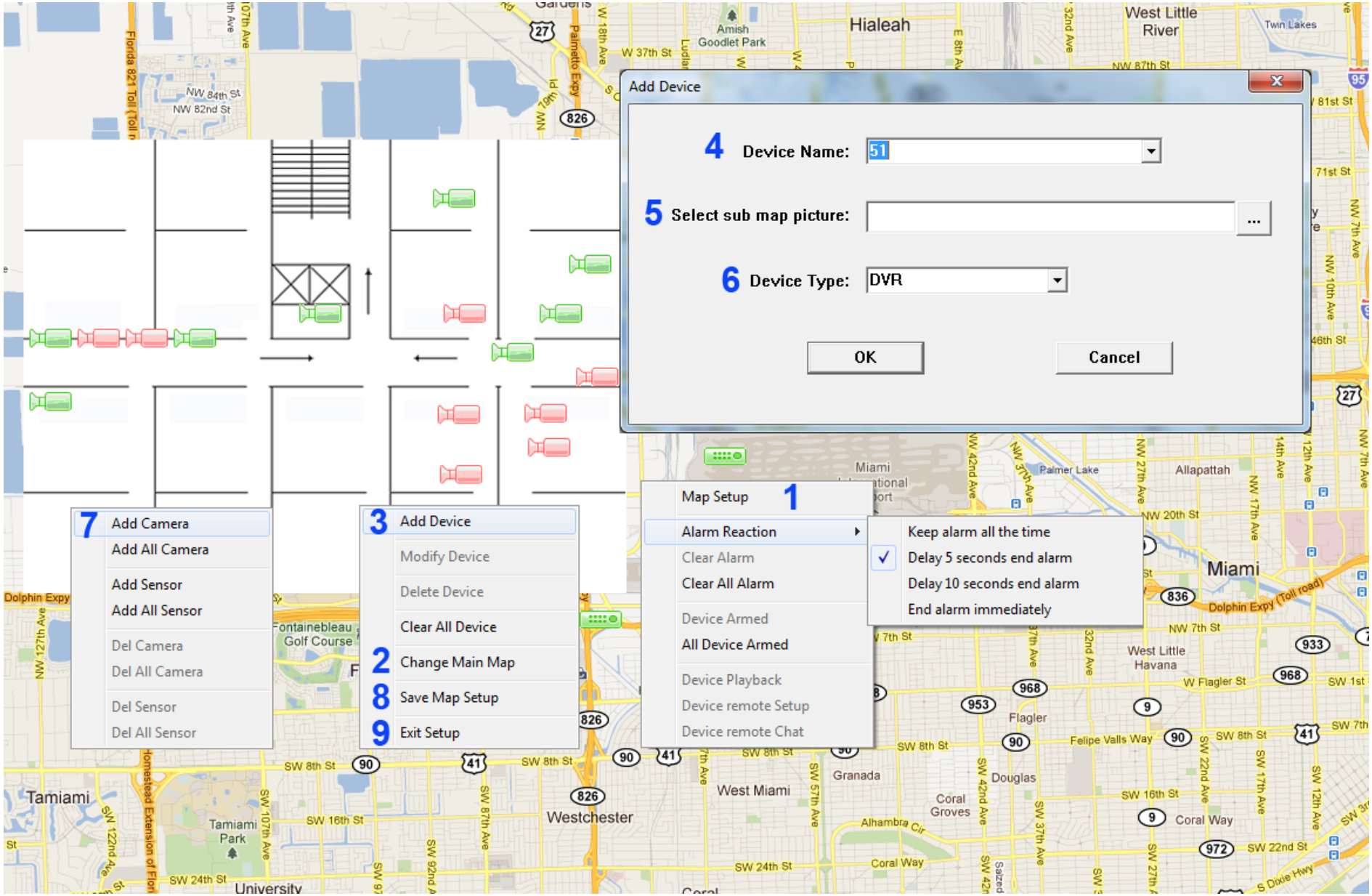
**Step7:** Right click the sub-map and select "**Add camera**" or "**Add sensor**" to enter the camera/sensor for the second level map.

**Tips: To hide a sub-map just double-click anywhere on the sub-map. To bring up the sub-map of a device just double-click on the device. Double clicking on any camera icon will force that camera to be displayed on first monitor in full screen mode.**

**Step8:** After you finish all the video devices, right click anywhere on the main-map and select "**Save Map Setup**" to save settings.

**Step9:** Right click anywhere on main-map, select "Exit Setup" to end E-map setup mode.

After you exit the E-map setup mode, E-map is ready to be used. If you would like to delete some items, modify a sub-map or move the position of any sensor, camera and device, you should enter the E-map setup mode again.


Add Device
4 Device Name: 51
5 Select sub map picture:
...
6 Device Type: DVR
OK
Cancel
Map Setup 1
Alarm Reaction
Clear Alarm
Clear All Alarm
Device Armed
All Device Armed
Device Playback
Device remote Setup
Device remote Chat
Keep alarm all the time
Delay 5 seconds end alarm
Delay 10 seconds end alarm
End alarm immediately
7 Add Camera
Add All Camera
Add Sensor
Add All Sensor
Del Camera
Del All Camera
Del Sensor
Del All Sensor
3 Add Device
Modify Device
Delete Device
Clear All Device
2 Change Main Map
8 Save Map Setup
9 Exit Setup
Hialeah
West Little River
Miami
Tamiami
Westchester
West Miami
Allapattah
Palmer Lake
Fontainebleau Golf Course
Tamiami Park
University
Granada
Douglas
Coral Groves
Flagler
West Little Havana
Coral Way
Dolphin Expy
Dolphin Expy (Toll road)
Homestead Extension of Flor
Alhambra Cir
Felipe Valls Way

### 2.7.3 Operation on E-map

The operation on E-map is used for viewing where the alarm signal came from and what happened on the scene. The right-click menu has a list of all the operations that you can do on the map, but the menu will change when you click on different spots of the menu.

If you right-click a device on the map, the menu will list individual operation for this device. The individual operations include:

- **Clear Alarm:** Choose this operation to manually clear the current alarm signal. The auto pop up alarm video from this video server will stop.
- **Device Armed:** Choose this operation to set the device to armed status. The device icon will change from green to yellow. When this device has an alarm trigger, its icon color will change from yellow to red and flash continuously. Meanwhile, the alarm camera video will automatically pop up in a free sequential sub-window. But if the camera is showing on your screen (already connected), it will not pop up again (the connection will not reduplicate).

  **Important: This operation step is only to setup the Live Center program to receive alarm signals from video server. You must make sure the video server is already configured correctly to send out the alarm signal. Otherwise the E-map will work abnormally. You also need concern with your computer CPU usage shown on the information board in main interface. When CPU usage exceeds 80% the E-map will stop to popup more alarm camera.**
- **Device playback:** This operation is equivalent to Remote Search, see Section 2.6
- **Device Remote Setup:** This operation is equivalent to Remote Setup, see Section 2.4.
- **Device Remote Chat:** This operation is equivalent to Remote Talk, see Section 2.11.3.

If you right-click a free area on the map, the menu lists common operations to all devices. The common operations include:

- **Map Setup:** See Section 2.7.2
- **Alarm Reaction:** Select an action for the E-map to perform after the alarm has stopped in the video server site. Go to the sub-menu to set alarm control method.

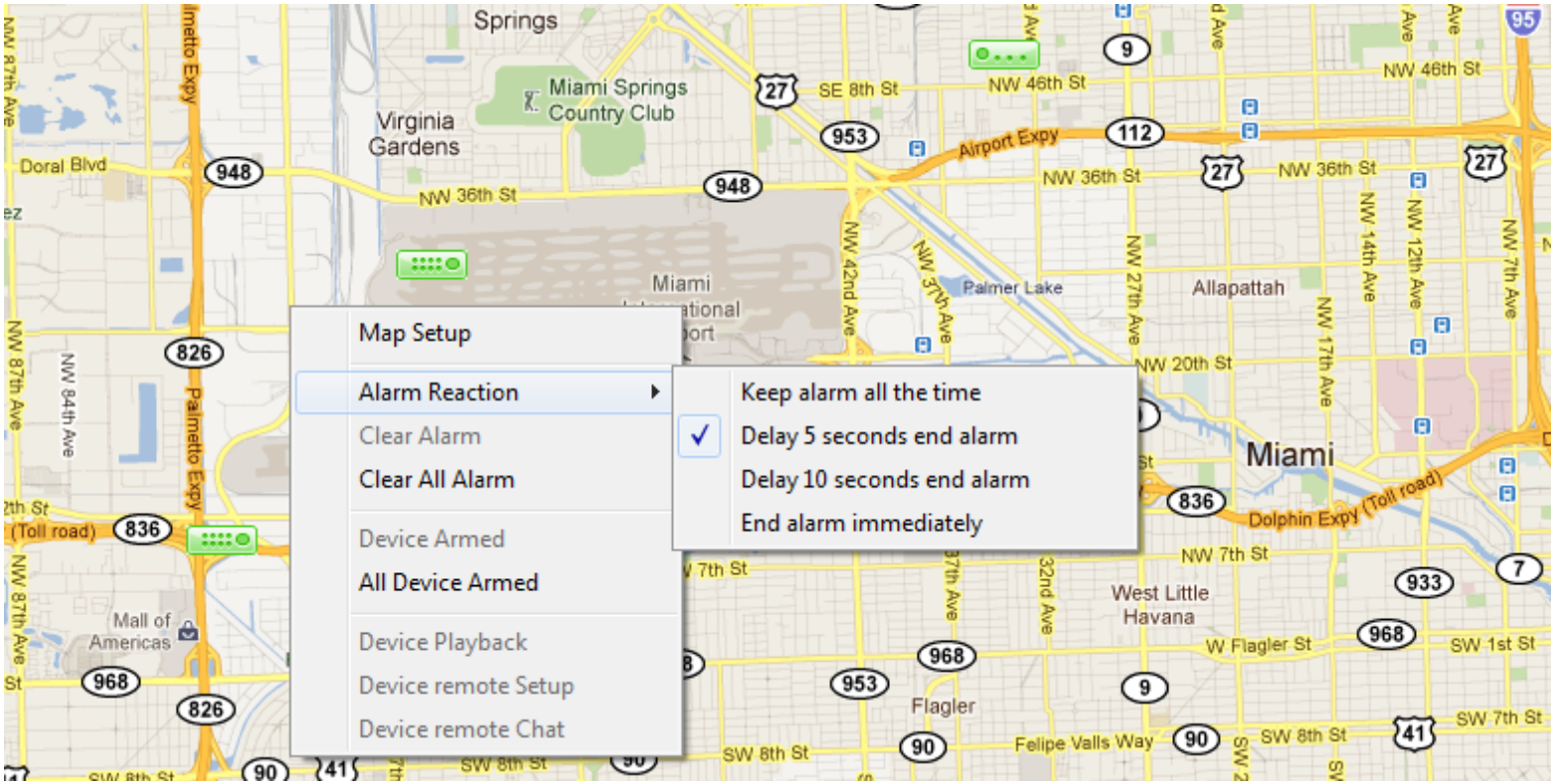
✓ **Keep alarm all the time:** This holds an alarm status on. The alarm will not stop and the alarm camera stays on screen continuously.

✓ **Delay 5 seconds end alarm:** Hold on alarming status only 5 seconds then stop. The alarm camera stays on screen 5 seconds then disappear.

✓ **Delay 10 seconds end alarm:** Hold on alarming status only 10 seconds then stop. The alarm camera stays on screen 10 seconds then disappear.

✓ **End alarm immediately:** Stop immediately. The alarm camera only shows up for the time preset in server configuration of alarm control.

- **Clear all alarm:** Manually clear current alarm signal for all devices
- **All Device Armed:** Set all devices to armed mode.
- **Tips: "Clear Alarm" and "Clear all alarm" are not available if you set "End alarm immediately" because the system clears alarm automatically. When a device is armed, there is a check-on sign "√" in its right-click menu, to disarm this device just click this menu again.**




## 2.8 Remote Control PTZ

All buttons and operation are exactly the same as those on the HVR PTZ control. Please see Section 1.9 for more details.

## 2.9 Data Backup

All buttons and operation are exactly the same as those on the HVR Data backup. Please see Section 1.10 for more details.

## 2.10 IP Matrix TV-wall Operation

### 2.10.1 Introduction of IP Matrix

Traditional Analog Video Matrix routes the video from many cameras to multiple monitors. Signals from a range of input sources can be distributed to various output devices. Traditional matrix is limited by the coaxial cable distance limitation (usually only couple hundreds of meters). IP Matrix routes the digital video from the network connections to multiple sub-windows (channels) on single monitor, or outputs them to multiple monitors (TV-Wall) via PC VGA display card or video decoder card. The great advantage of the IP matrix is that it overcomes the limitation of distance in traditional analog matrix systems. Live Center offers two solutions of IP matrix TV-wall function.

### 2.10.2 Decode Card TV-wall Operation

The Decode Card TV-out function requires a 3000H4Dx decoder card. One system can support a maximum of 24 TV-out ports (max. 24 monitors). A decoder card TV-out channel (or port) and decoder channel have two different definitions. The TV-out port has a physical BNC connecter while the decoder channel has a virtual network connection. In the HVR server system, the video the DVR card transfers to the decoder card's TV-out is called **video forward**. The working theory is different from IP video. In the Live Center system, the video transferred from the connection video server/P camera to the decoder card's TV-out is called **video decode**.

- 3000H4D4 decoder card supports 4-ch TV-out. It can decode 4-ch D1 resolution video or 8-ch CIF resolution video.
- 3000H4D2 decoder card supports 2-ch TV-out. It can decode 2-ch D1 resolution video or 4-ch CIF resolution video.

For example, if you install a 3000H4D4 and a 3000H4D2 card in the computer running Live Center, you will be creating a physical 6-port TV-out system. That means you can connect 6 analog monitors (TV) to view the remote camera. When you set D1 Decode Mode in Live Center program, you get exactly 6 cameras to show on these monitors. When you set CIF Decode Mode in Live Center program, you'll get a total of 12 cameras to show on your monitors.

Set the decoder card working mode in the IP Setup interface.

The following "Decode Card TV-Out Setup" interface will pop up.

**Operation steps:**

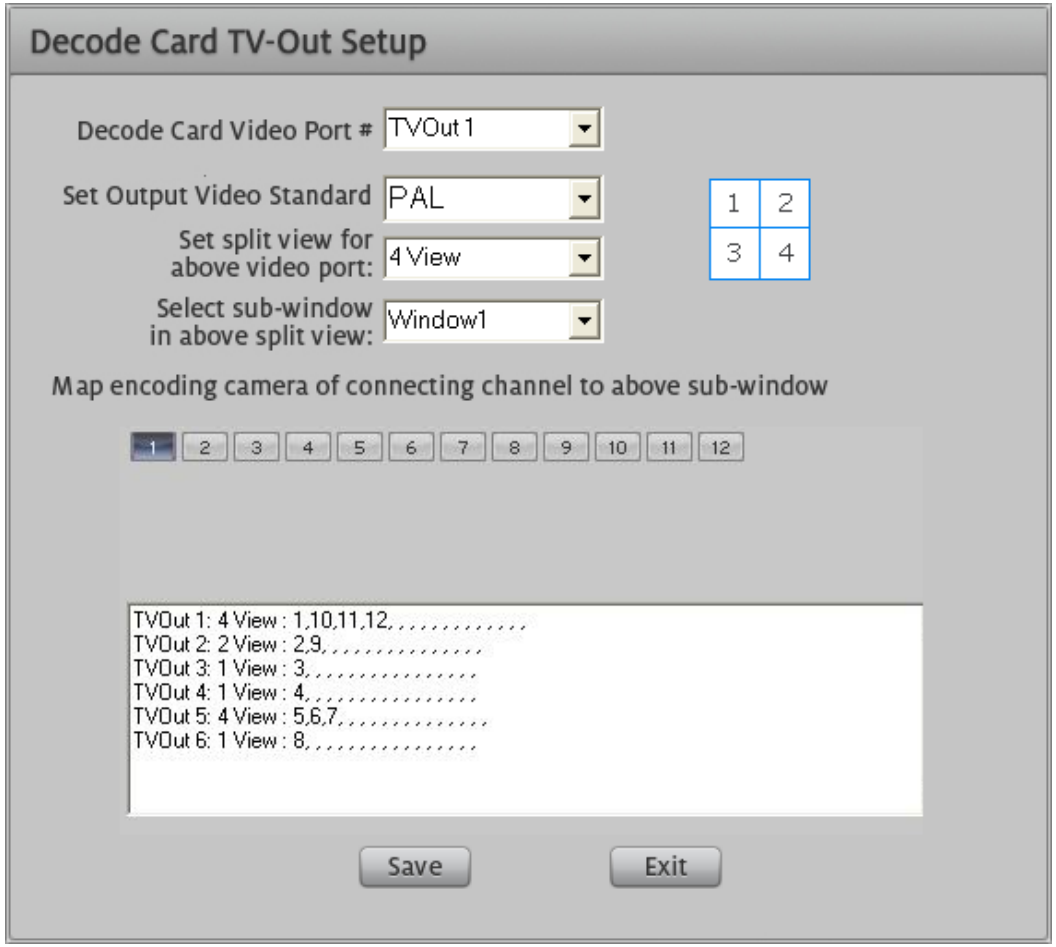
**Step 1:**

Choose TV-out port number to set your display parameters. The TV-out display settings must be configured

one by one for the ports. All the following 5 operation steps are saved in this port (video out 01) until you change another port to operate. So please finish all 6 steps before you change to another port. Repeat step 1 to step 6 until all Video out ports configured.

**Step 2:**

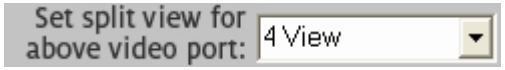
Select the out-going video format to match the monitor video standard (NTSC or PAL).




Description of TV-out ports:

Monitor #1 will show ch-1, ch-10, ch-11 and ch-12 in 4 split views.
Monitor #2 will show ch-2, ch-9 in 2 split views.
Monitor #3 will show ch-3 in 1 split view.
Monitor #4 will show ch-4 in 1 split view.
Monitor #5 will show ch-5, ch-6 and ch-7 in 4 split views.
Monitor #6 will show ch-8 in 1 split view.

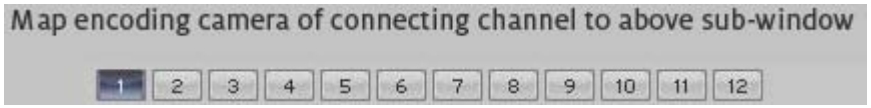
All channels are virtual cameras. They might change if you apply an IP matrix function.

**Step 3:** 

Select a split viewing mode for this port (TV-out port 01).

**Step 4:**

Choose one sub-window in the above split view (step 3) to assign camera(s) to. The sub-window must be assigned one by one. Before you change another TV-out port, please finish all sub-windows assignment.

**Step 5:** 

Click the camera number to add it in sub-window1.

After you save above settings, the TV-monitor will auto display cameras when you connect remote video server. If you have already setup multiple cameras from one connection video server to display in one sub-window (Refer to section 2.2.2), when you press switch button in Group control panel, the TV-out video will auto switch according to the switching time settings.

**Notice: To change the decoder card working mode, the hardware must be initialized by exiting and restarting the program.**

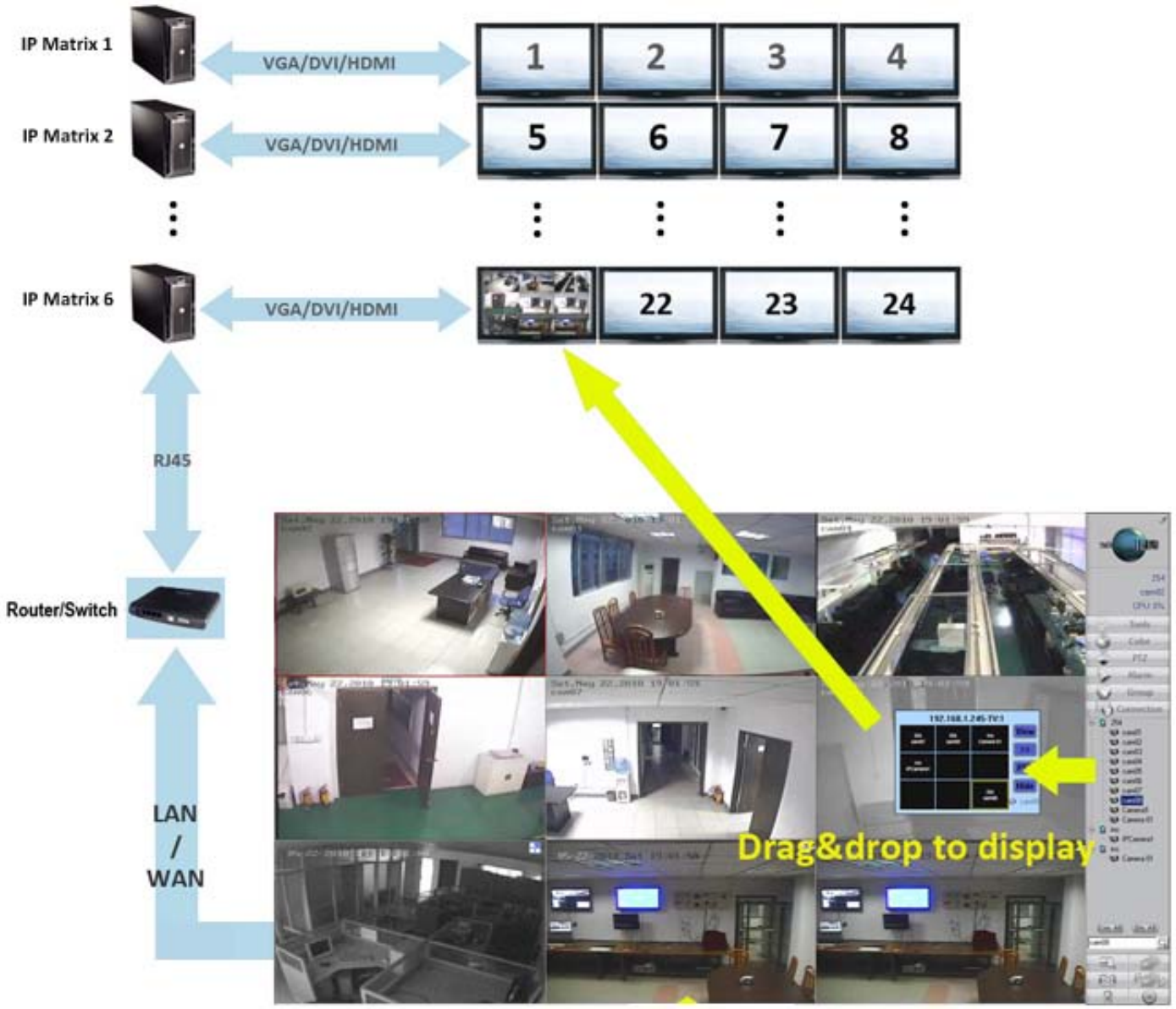
### 2.10.3 IP Matrix TV-wall Operation

To enter IP Matrix TV-wall setup interface, please right click any camera window then select “IP Matrix Operation” from right-click menu.

The IP Matrix TV-Client is exactly the same software as in HVR Server. Please refer to section 1.4.8 and 1.4.9 for configuration steps. One Live Center system supports up to 24 monitors to build up a TV-wall. Each monitor supports maximum 16 split viewing. That means you can watch 16 cameras simultaneously in one monitor. But if you add multiple cameras to one sub-window for applying switch view. The camera number can be amplified by 64 times to maximum. The following illustration shows the IP matrix TV-wall architecture. To build up a 24-monitor TV-wall, you just need 6 computers. Each computer has 4-head VGA/DVI/HDMI output.

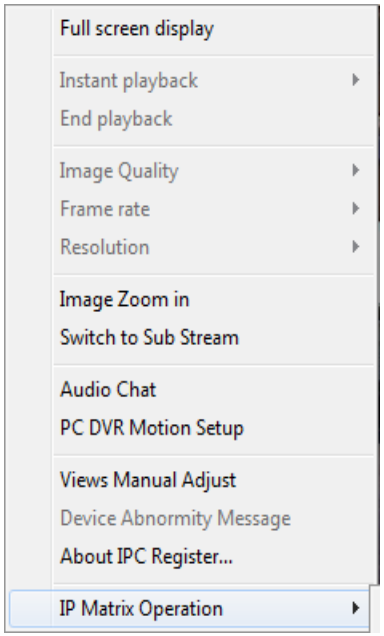
There are 2 different operations in Live Center.

- It is not necessary for Live Center to enable dual-monitor function to support IP Matrix TV-Client.
- Besides the same setup steps as in the HVR Server, Live Center offers more convenient operation called drag & drop to display. It means you can drag any camera from connection list to display it in any monitor.




## 2.11 Miscellaneous Operation

### 2.11.1 Right-click menu operation




Choosing "**Full screen display**" will hide the operation panel located on right side of main interface.

Select a time to play back. The Instant Playback time depends entirely on the setting located in the local setup configuration.

**Image Quality, Frame Rate** and **Resolution** are used to dynamically adjust video quality. If the video type is already main-stream, these options are not available.

Draw a rectangular zone in the camera window to amplify the image in the zone.

If the video type is already sub-stream, the **Switch to Sub-stream** is not available.

Click to enter Remote Talk. Refer to section 2.11.3.

Audio Chat enable you execute VoIP talk to the camera's site.

Remote setup the Motion Detect parameters of HVR (PCDVR) camera.

Views Manual Adjust: Turn off /turn on the alarm camera split view auto change function, refer to section 2.3.2.

Read malfunction device information.

Read IP device register information and U-dongle serial number

Click to enter IP Matrix T V-Client setup interface, please refer to section 1.4.9.

### 2.11.2 Remote Monitor Audio

Click any camera to activate and output its audio to your speakers. Only one audio channel can be heard.

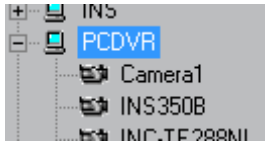
### 2.11.3 Remote Talk

On the main interface Tools panel, press the button to bring up the **Remote Server selection** dialog interface. Select the remote server's alias from the drop down list and click "**OK**" to begin VoIP communication with the remote server. Click the "**End Talk**" button to terminate the remote talk session. You cam also choose "Audio Chat" from right-click menu.

**Note: The Remote talk function requires a sound card, microphone and speaker to function properly.**

### 2.11.4 Change camera viewing window

Click the target sub-window in which you would like to show the camera. Click the "+" sign to expand the connection list and double click your target camera name.




Double click a camera to show it in the active window. Double click again to terminate it.

### 2.11.5 Capture Picture

Please refer to Section 1.12.6.

### 2.11.6 Print Picture

Please refer to Section 1.12.7.

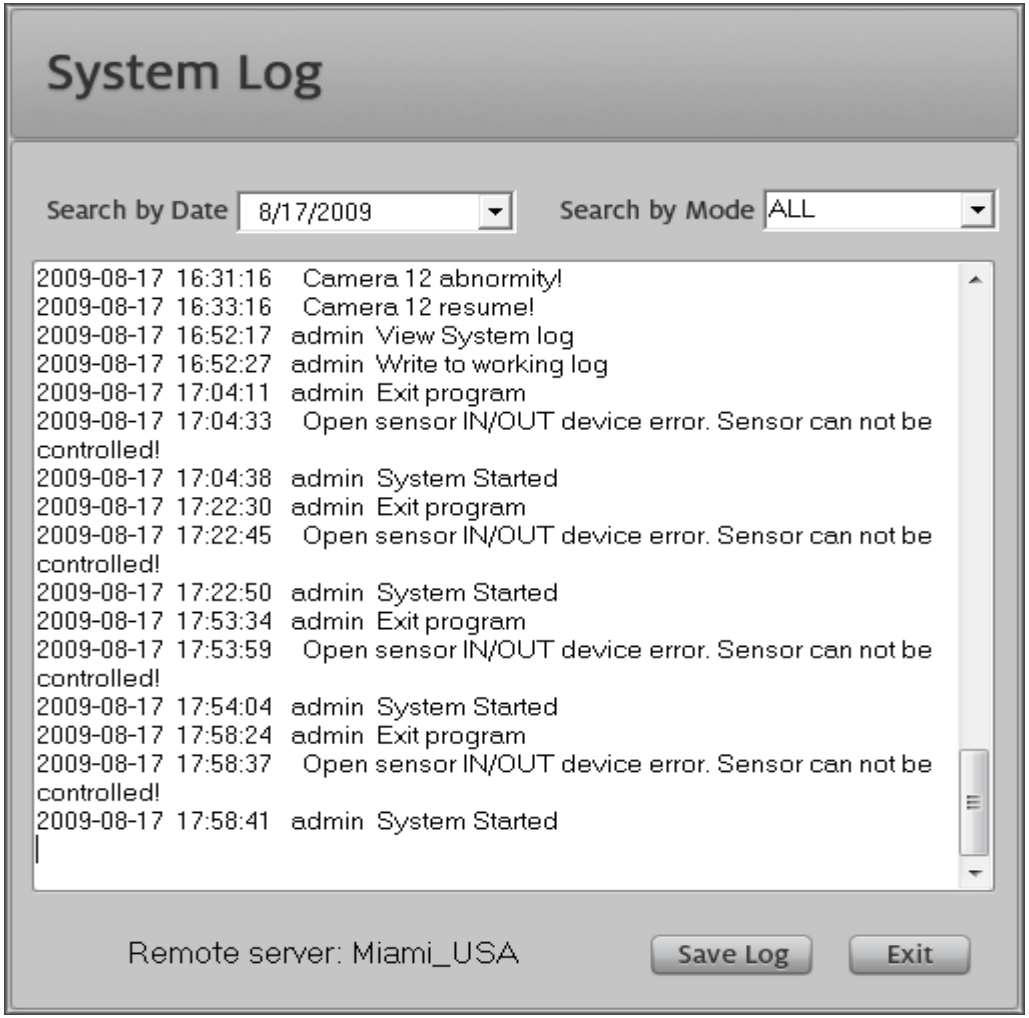
### 2.11.7 System Log

**Remote Log**

Press the remote log button to view the remote server's system log.

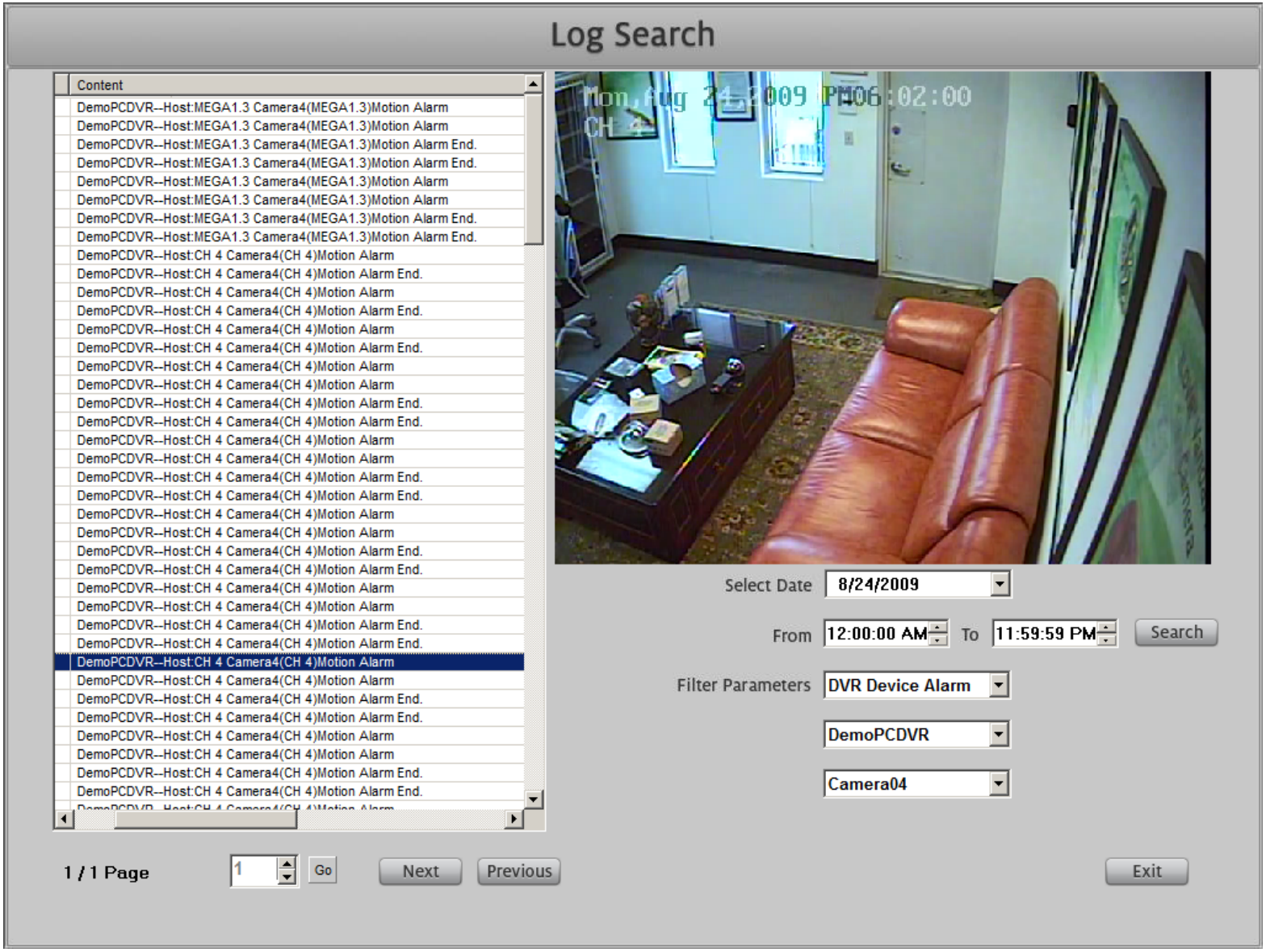
(This feature is only available when connecting to a HVR).

Click on "**Save Log**" to backup the system log as a text file.


System Log
Search by Date 8/17/2009
Search by Mode ALL
2009-08-17 16:31:16 Camera 12 abnormity!
2009-08-17 16:33:16 Camera 12 resume!
2009-08-17 16:52:17 admin View System log
2009-08-17 16:52:27 admin Write to working log
2009-08-17 17:04:11 admin Exit program
2009-08-17 17:04:33 Open sensor IN/OUT device error. Sensor can not be controlled!
2009-08-17 17:04:38 admin System Started
2009-08-17 17:22:30 admin Exit program
2009-08-17 17:22:45 Open sensor IN/OUT device error. Sensor can not be controlled!
2009-08-17 17:22:50 admin System Started
2009-08-17 17:53:34 admin Exit program
2009-08-17 17:53:59 Open sensor IN/OUT device error. Sensor can not be controlled!
2009-08-17 17:54:04 admin System Started
2009-08-17 17:58:24 admin Exit program
2009-08-17 17:58:37 Open sensor IN/OUT device error. Sensor can not be controlled!
2009-08-17 17:58:41 admin System Started
Remote server: Miami_USA
Save Log
Exit

**Local log**

On the main interface, press the button to display the following "**Log Search"** interface. Here you can use filter function to search alarm event. When you select filter to "DVR Device Alarm", the sub-level filter will show up below the first level. See the picture in next page. Double click the alarm event item in left Content List, the linked alarm video will show up in the video window.




**Define log by self**

On the main interface, press the button to display the following "**Log Record Define"** interface. Here you can define the Live Center system log to save which type of system event.

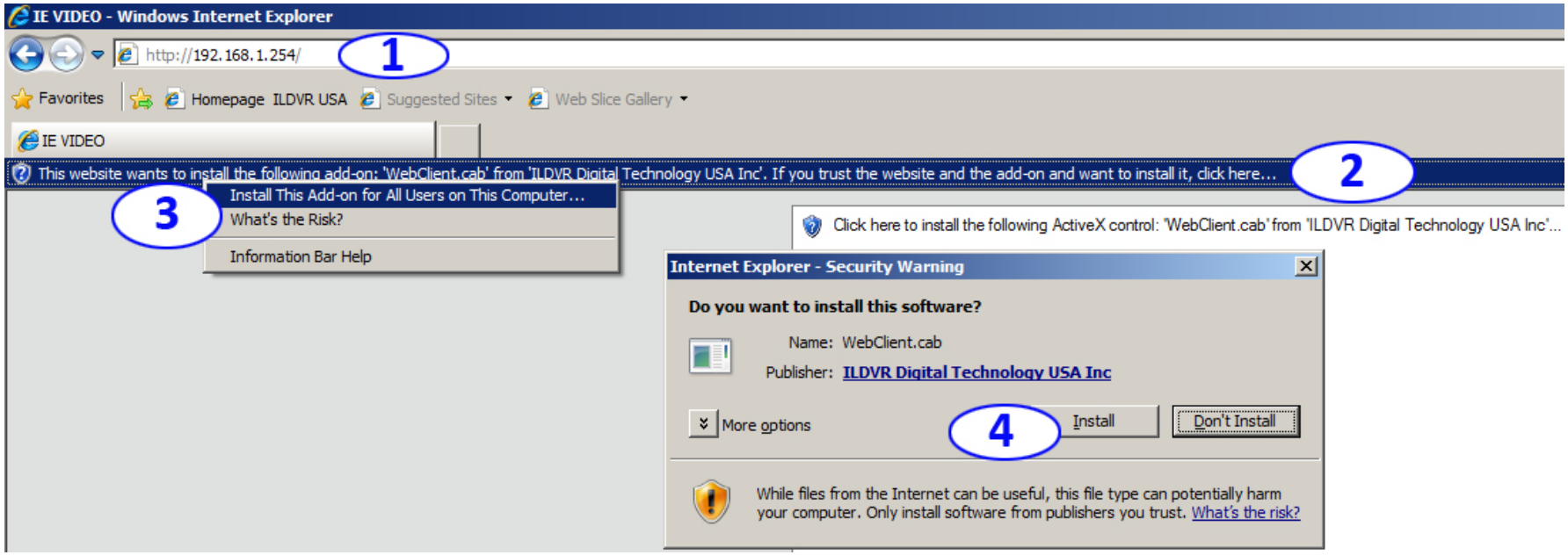
# Chapter 3 Web Client

Both HVR Server and Live Center supports the web client (IE CLIENT). Live Center works as a video server to forward video stream to the web client to reduce the HVR Server's network load and save network bandwidth.

## 3.1 Download and install ActiveX Control

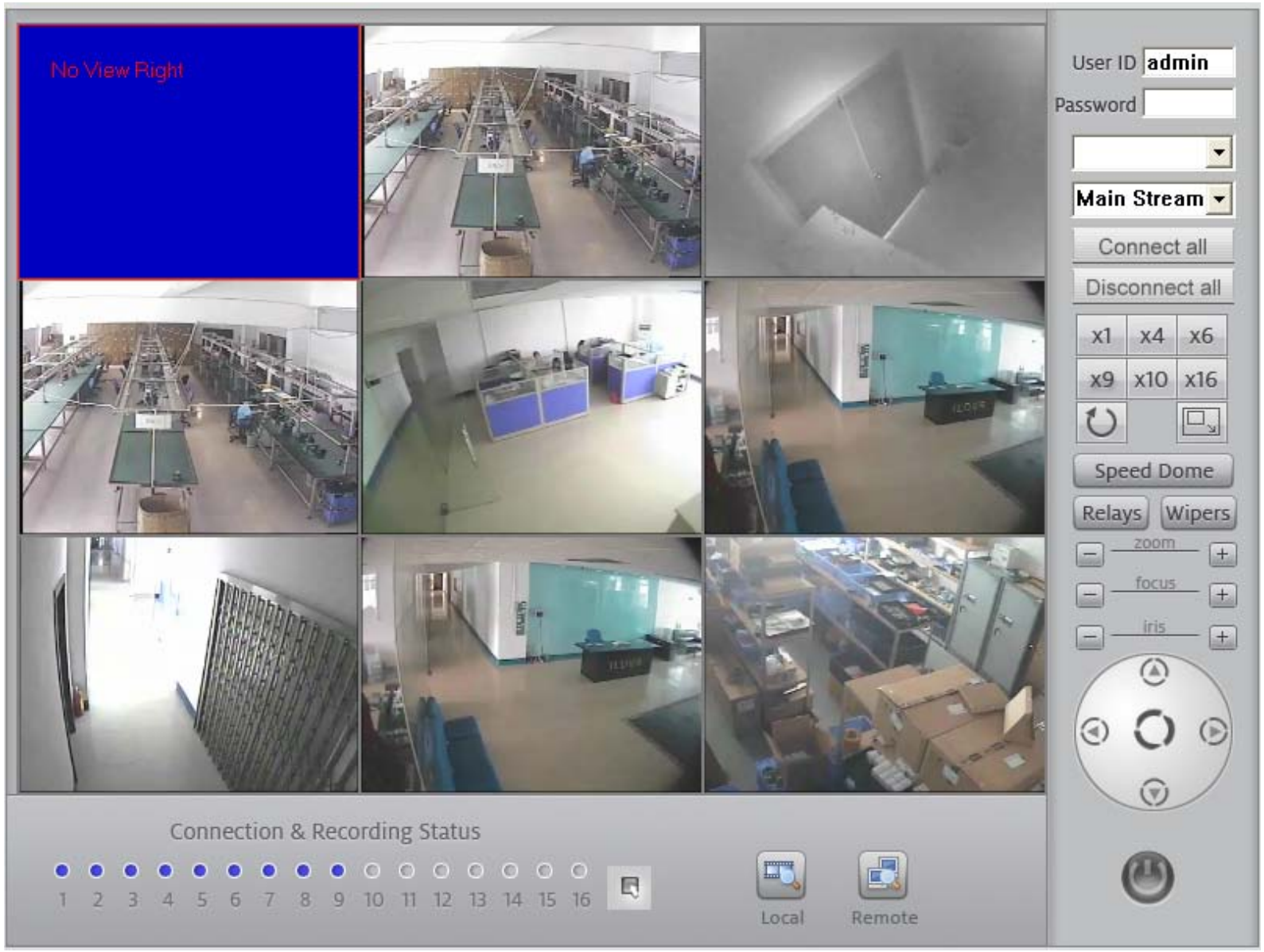
Run Internet Explorer and enter the HVR Server/Live Center IP address and web listening port (if web port is not 80) in the address box. Press "**Enter**" and a security warning will appear after connecting with the HVR server. This warning is the ActiveX control that needs to be downloaded in order to use this feature. Follow the 4 steps to install the ActiveX Control shown on the illustration.

If you have correctly configured the HVR server with DNS/DDNS, you can also input the HVR server domain name and web listening port in the IE address box.


IE VIDEO - Windows Internet Explorer
http://192.168.1.254/
1
Favorites
Homepage ILDVR USA
Suggested Sites
Web Slice Gallery
IE VIDEO
This website wants to install the following add-on: 'WebClient.cab' from 'ILDVR Digital Technology USA Inc'. If you trust the website and the add-on and want to install it, click here...
2
3
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
Click here to install the following ActiveX control: 'WebClient.cab' from 'ILDVR Digital Technology USA Inc'...
Internet Explorer - Security Warning
Do you want to install this software?
Name: WebClient.cab
Publisher: ILDVR Digital Technology USA Inc
More options
4
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

After installing the ActiveX controls, the following web client interface will show on your screen. Click the camera number icon to connect each camera one by one, or click

the “**Connect all**” button to connect all your cameras at once.



## 2 Control panel

Enter user name and password to log in.

This displays the current active channel's camera name and stream type.

Connect and disconnect buttons.

Split viewing mode.

The left button is switch viewing button. The right button is full screen mode button. In full screen mode right-click to restore normal screen mode.

Speed Dome control on/off. If this button and below PTZ buttons don't work, please click x1 or x4 split view button then click switch button to activate PTZ function.

Relay out control button.

Lens control button.

Pan/Tilt control button.

## 3.3 Remote Record

Channel number and status indicator button. Click this button to start recording onto your remote client's hard disk drive.

Connecting status indicator (**blue** color): Clicking this will change the status to (**green** color) and the camera will start recording video.

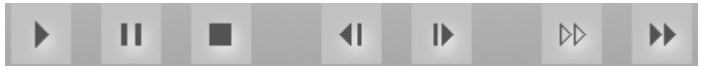
No connection status indicator.

Record status indicator (**green** color): Clicking this will change the status to (**blue** color) and the camera to stop recording.

Change-All button: Click this button to change every channels status. Click it again to restore every one of the status channels to its original setting.

## 3.4 Remote Search

Click the button to enter the **Remote Search** interface. Choosing a specific date and camera will bring up all the recorded data into the right info box. Click any file to display it.



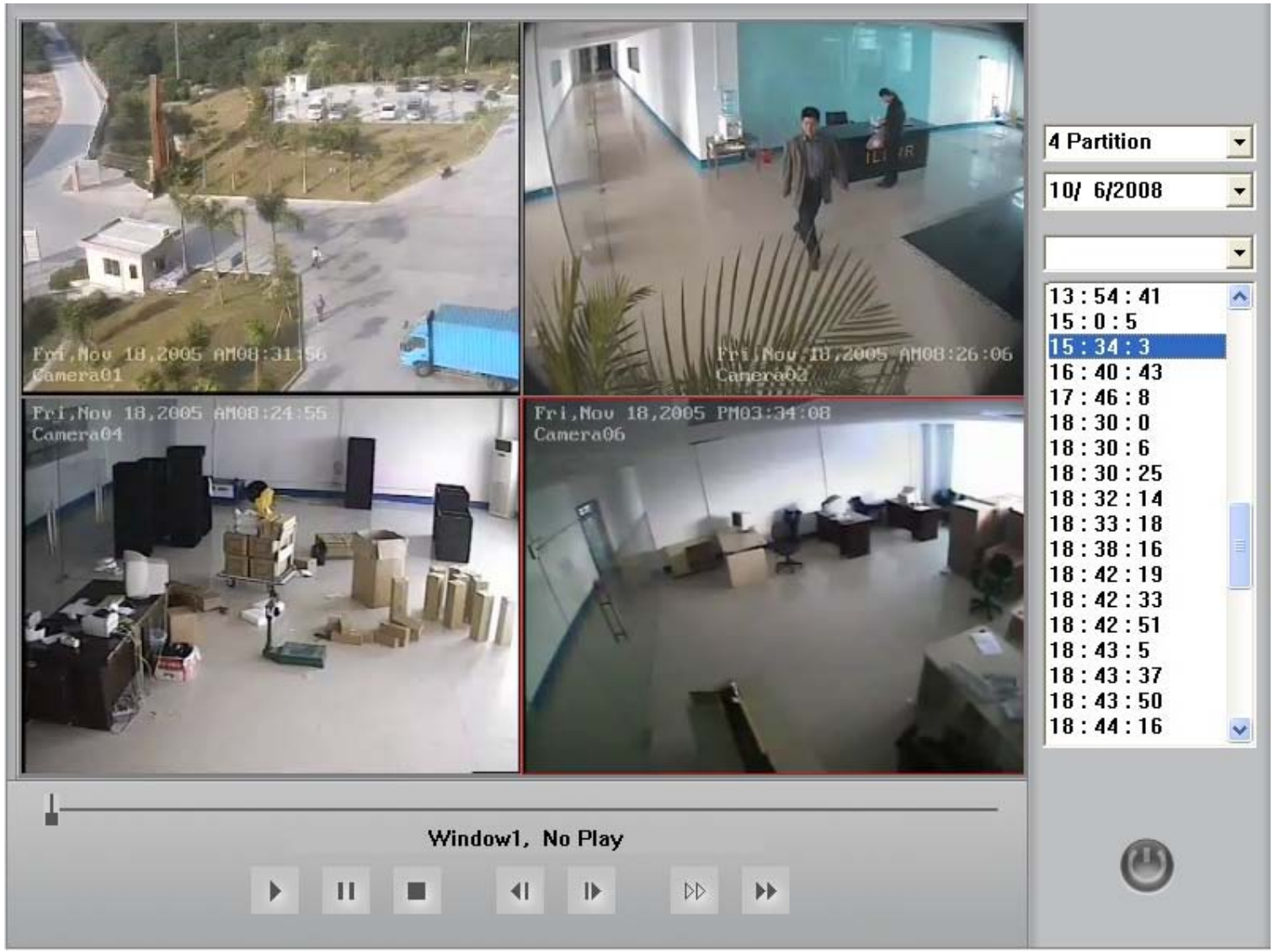
Control buttons from left to right: Play, Pause, Stop, Last Frame, Next Frame, Low Speed Play, Fast Speed Play.

**Note: The "Last Frame" button does not work because the remote search is playing streaming video. It will only work if you are looking at recorded data.**

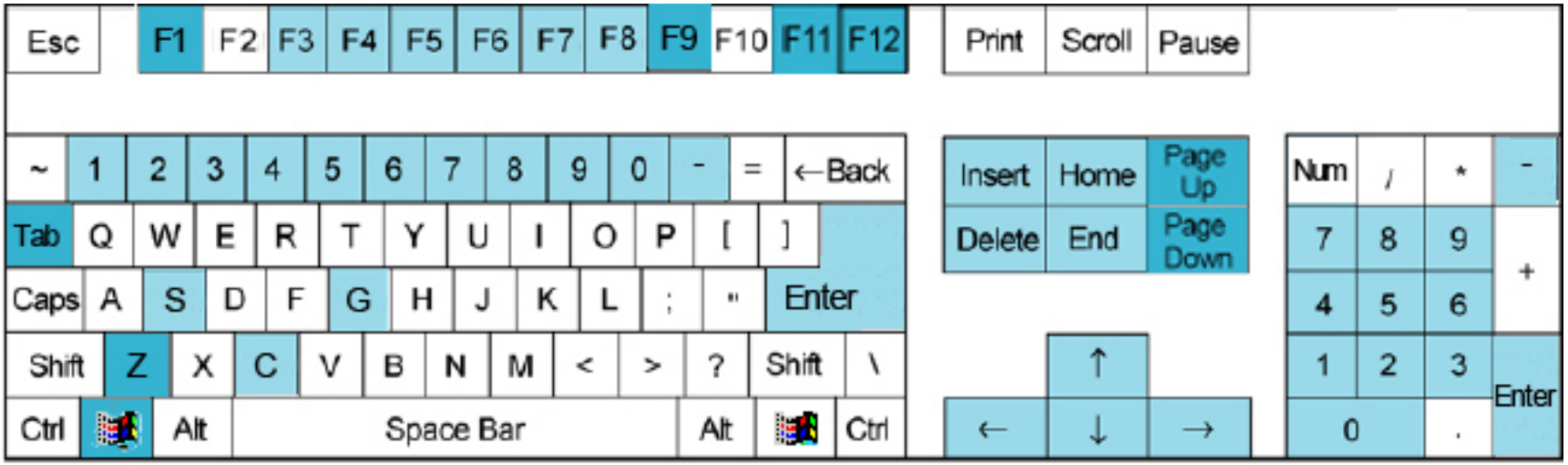
Save button: Click this button to save the displayed camera video to your local disk. All video displayed will be recorded in the HVR server, but you can download the video when you are in remote playback simply by clicking this button.

## 3.5 Local Search

Click the button to enter the **Local Search** interface (shown below). All displayed video are manually recorded on a local disk via the web client.



## Appendix A: PC Keyboard PTZ Control Guide


Esc
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
Print Scroll Pause
~ 1 2 3 4 5 6 7 8 9 0 - = ←Back
Tab Q W E R T Y U I O P [ ]
Caps A S D F G H J K L ; " Enter
Shift Z X C V B N M < > ? Shift \
Ctrl Alt Space Bar Alt Ctrl
Insert Home Page Up
Delete End Page Down
↑
← ↓ →
Num / * -
7 8 9 +
4 5 6
1 2 3 Enter
0 .

The light blue color keys are used to control the PTZ. The dark blue color keys are used to control all other functions.

PTZ Control:

| Keyboard | Function |
|---|---|
| ↑ | UP |
| ↓ | DOWN |
| ← | LEFT |
| → | RIGHT |
| Home | ZOOM IN |
| End | ZOOM OUT |
| Insert | FOCUS IN |

| | |
|---|---|
| Delete | FOCUS OUT |
| S | Save Preset |
| G, Enter | Call Preset |
| C, -, Num0-9 | Delete Preset |
| F3-F8 | Run PTZ Tour, F3 - F8 means 3 to 8 second interval |

Other Control:

| Keyboard | Function |
|---|---|
| F1 | Reserved |
| Tab | Switch camera / channel |
| Page Down | Switch to next camera / channel |
| Page UP | Switch to ahead camera / channel |
| F9 | All cameras record 30 seconds urgently |
| F11 | Single screen enlarge / shrink |
| F12 | Full screen switch |
| WIN+ Z | Hide screen |

## Appendix B: DVR Keyboard IKB-2988 Operation Guide

**COM port Connection:** IKB-2988 keyboard use COM port communication, please plug in the data cable connecter to the COM port that you assign to the settings "DVR keyboard Support" in HVR / Live Center software. The communication parameters are Baud Rate= 9600, Parity=none, Data Bit=8, Stop Bit= 1. If the keyboard doesn't work, please check the COM port parameters in the Device Manager of Windows OS.

The LCD screen displays the information of current state and user inputs. The contents might change according to operations.

**Lock/Unlock:** Press this key to lock/unlock the keyboard. Unlock steps is “Unlock + 0000 + OK”. The default password “0000” cannot be changed.

**Page**: This key is similar to **Auto Switch on/off** button in software main interface. Press it to shift the screen page one by one. It only works when the total camera number exceeds current split viewing number.

**F11:**Single view or one split view key. Press it to turn on/off current window or camera in single widow mode.

**F12:**Full screen key. Press it to turn on/off full screen mode.

**4 view/9 view/16 view/24 view/36 view:** Press these keys to shift to proper split viewing mode directly.

**Views:** Press this key plus a number then press OK to shift other split viewing mode. If you input a non-standard split view number, the system will show up the most close to this number of standard split view.

**Window**: Sub-window select key. Press this key plus a number then press OK. The target sub-window will show up in single mode immediately.

**Camera:** Camera select key. Press this key plus a number then press OK. The target camera will show up in single mode immediately.

**For your attention:** Even the camera key has same operation result as the Window Key, but they are definitely different. The Window key calls virtual camera of screen, the Camera key calls physical connection camera (default settings) that saves in system. So the Camera key has different functions in HVR server and Live Center (or other network software such as CMS E-map and CMS Client). In HVR Server, when you setup display groups to break the default relations of camera and sub-window, press Camera key to call camera will ignore the group display settings and force the default target camera to pop up. In Live Center, press Camera key to call camera will force the default connection camera to pop up, even if it is not connecting, it will auto connect immediately.

**Switch**: TAB key. Press this key to select next sub-windows one by one.

**Talk:** Press this key to activate remote talk with current camera connection site.

**30’s Record:** Emergency record key, same function as it in software main interface. Press it to force all cameras to record video for 30 seconds.

**Inst. Play:** Instant Playback key. Same function as the right-click menu of instant playback. Press this key plus a number then press OK to playback the recording video of current active camera. The setting options of “Max. time to instant playback” in HVR system will take effects to this operation.

**Grab:** Capture image key, same function as the Capture Image button in software main interface. Press it to capture and save one picture of current active camera.

**Stop:** Press this key to stop Instant Playback or Remote Talk.

**Armed/UnArmed**: These two keys only work with Live Center E-Map. Same function as the E-map right-click menu of “All devices armed”. Press them to check-on/check-off “All devices armed”.

**OK:** Confirm key. Always press it after you input a correct number.

**Cancel:** Press it to cancel your input number then input again.

**Focus+ / Focus-**: Press it to adjust the focus of active camera's lens.

**Zoom In / Zoom Out:** Press it to zoom in / zoom out the active camera.

**Tips:** This operation can be used to control mega pixel camera's **digital zoom in / zoom out** features.

**Iris+ / Iris-:** Press it to adjust the iris of active camera's lens.

**Set Preset:** Move the PTZ camera to aim position by joystick, press this key plus a number then press OK to save preset.

**Clear Preset:** press this key plus a number then press OK to delete preset.

**Call Preset:** press this key plus a number then press OK to call preset.

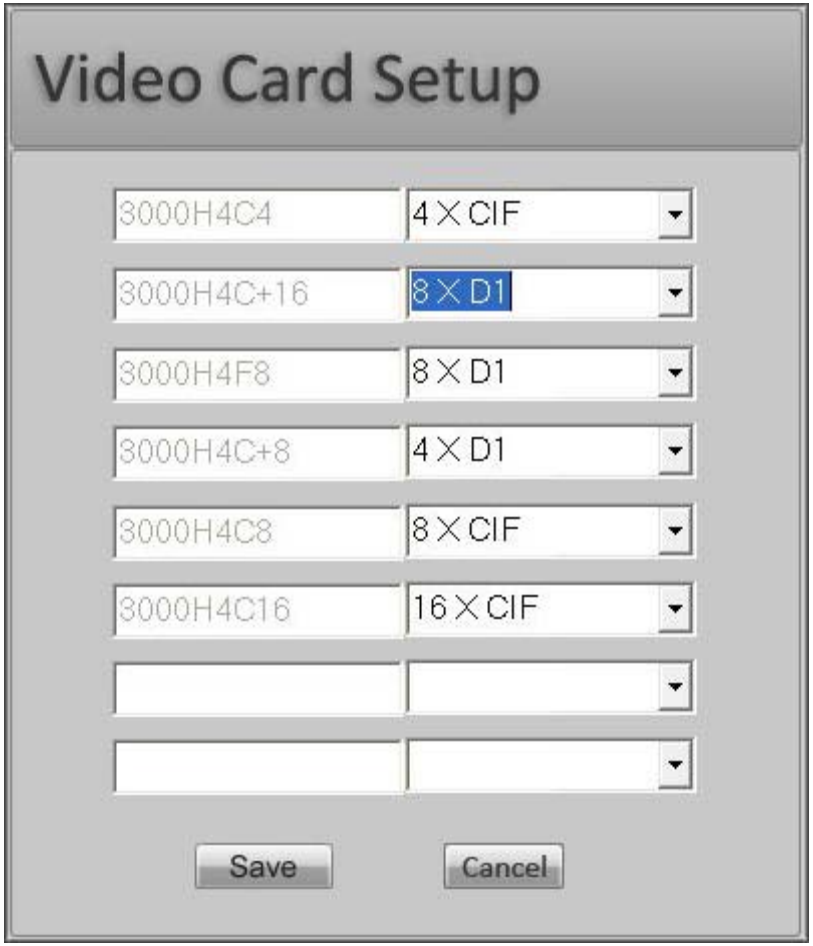
**Auto Pan, Wiper**, **Relay:** These keys are reserved.

## Appendix C: Change DVR card's default setting

In the Tools panel, press the button to open the **Video Card Setup** interface.

ILDVR 3000xx Series DVR cards channel settings list below.

| Model name | Default channel setting | Support channel options | Support Dual-Stream? |
|---|---|---|---|
| 3000H4C4+ | 4×CIF | 4×DCIF<br>1×D1+2×DCIF<br>2×D1 | Yes |
| 3000H4C8+ | 8×CIF | 8×DCIF<br>1×D1 + 6×DCIF<br>2×D1 + 4×DCIF<br>3×D1 + 2×DCIF<br>4×D1 | Yes |
| 3000H4C+16 | 16×CIF | 16×DCIF<br>1×D1 + 14×DCIF<br>2×D1 + 12×DCIF<br>3×D1 + 10×DCIF<br>4×D1 + 8×DCIF<br>5×D1 + 6×DCIF<br>6×D1 + 4×DCIF<br>7×D1 + 2×DCIF | Yes |



| | | | |
|---|---|---|---|
| | | 8×D1 | |
| 3004HS | 4×CIF | 4×CIF<br>1×D1 + 2×CIF<br>2×D1 | Yes |
| 3008HS/HSE | 8×CIF | 8×CIF<br>1×D1 + 6×CIF<br>2×D1 + 4×CIF<br>3×D1 + 2×CIF<br>4×D1 | Yes |
| 3016HS/HSE | 16×CIF | 16×CIF<br>1×D1 + 14×CIF<br>2×D1 + 12×CIF<br>3×D1 + 10×CIF<br>4×D1 + 8×CIF<br>5×D1 + 6×CIF<br>6×D1 + 4×CIF<br>7×D1 + 2×CIF<br>8×D1 | Yes |
| 3000H4F8 | 8×D1 | 8×D1 | Yes |
| 3008HQ | 8×CIF | 8×CIF | Yes |
| 3016HQ | 16×CIF | 16×CIF | Yes |
| 3008HT/HTE | 8×D1 | 8×D1 | Yes |
| 3016HT/HTE | 16×D1 | 16×D1 | Yes |
| 3004HR | 4×HD | 4×HD (1080P) | Yes |

Notes:

- System default record resolution is CIF (352×240), herein to set DCIF recording resolution, you must also set the Record Resolution to 528×320 in the Camera Setup. Herein to set D1 recording resolution, you must also set the Record Resolution to 704×480 in the Camera Setup. See Section 1.4.2.
- When you convert DVR card settings from CIF (DCIF) to D1, you will lose half the channels you originally had. An 8 channel card now turns to 4 channels. You end up losing all the even channels in this process. For example, if you convert the 3000H4C+8 from DCIF to D1, VID2, VID4, VID6, and VID8 will be disabled.
- 3000H4C+/3000HS/3000HES series cards also support non-real-time D1 resolution recording at about 13-17 fps depending on the PC's performance.
- 3008HQ and 3016HQ cards also support non-real-time D1 resolution recording at about 6 fps.

## Technical Support Information

Please fill in this form in order to get prompt technical service in case of an emergency.

| Item | Description |
|---|---|
| **HVR Model Name** | |
| **Card/IPcam serial number** | |
| **HVR Server Software Version** | |
| **Computer hardware list** | **Mother board:**<br>**CPU:**<br>**Memory:**<br>**Display card:**<br>**HDD:** |
| **Windows OS** | ☐ NT ☐ 2000 ☐ XP ☐ 2003 ☐ VISTA ☐ WIN7 |
| | ☐ 32 bit ☐ 64 bit |
| **Purchasing date** | |
| **Dealer’s Contact info** | **Company name:**<br>**Technical Engineer:**<br>**Tel:**<br>**Fax:**<br>**Email:** |